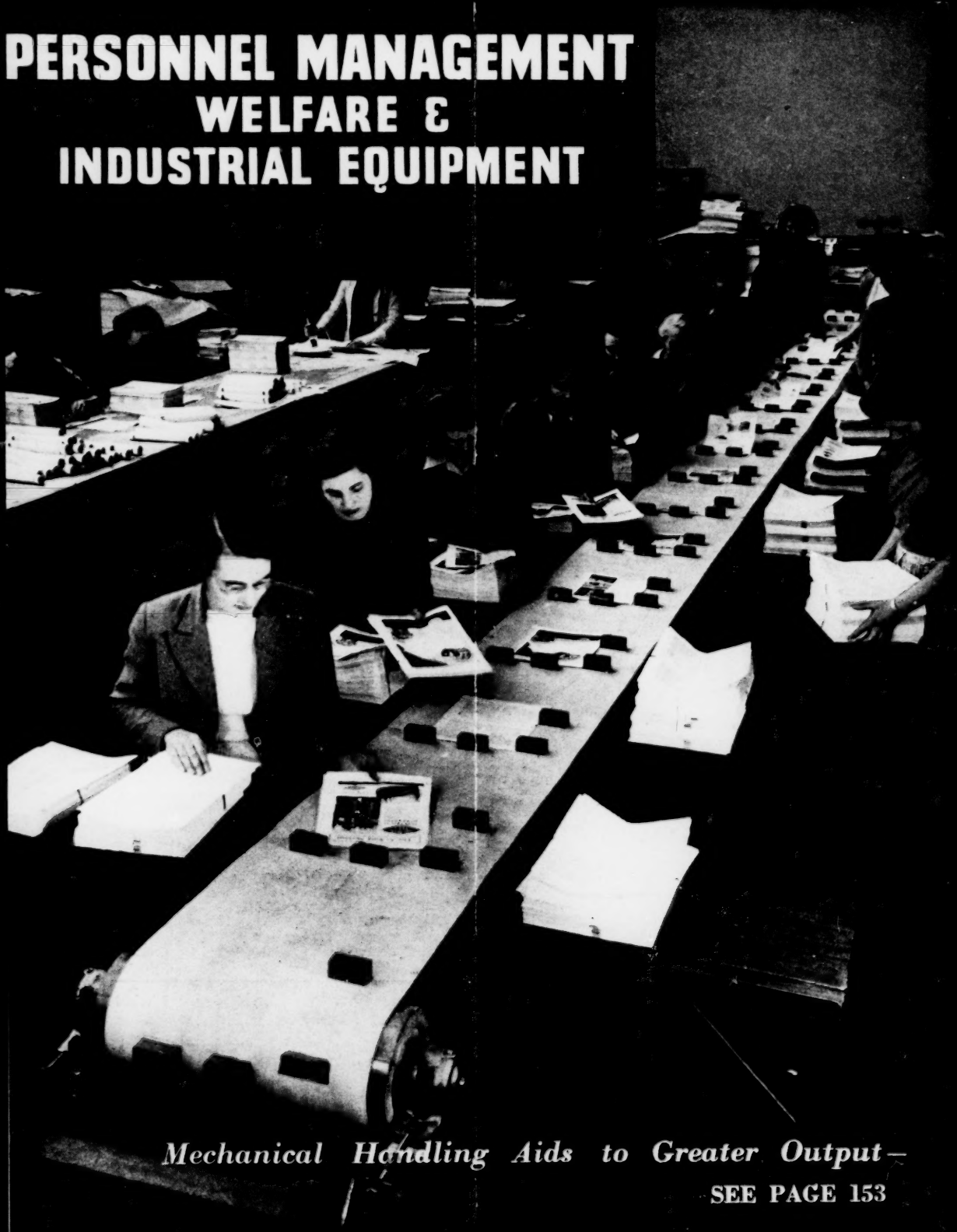
# PERSONNEL MANAGEMENT
## WELFARE & INDUSTRIAL EQUIPMENT



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SEE PAGE 153

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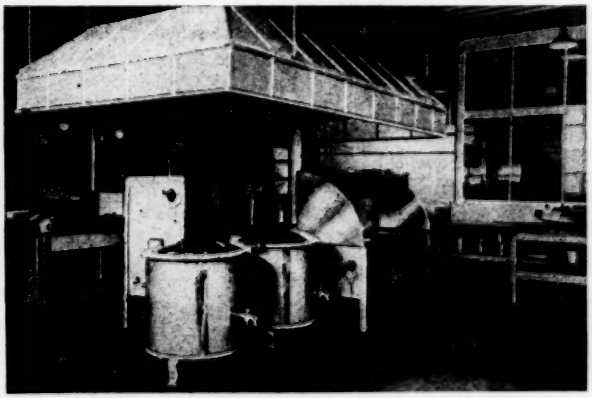

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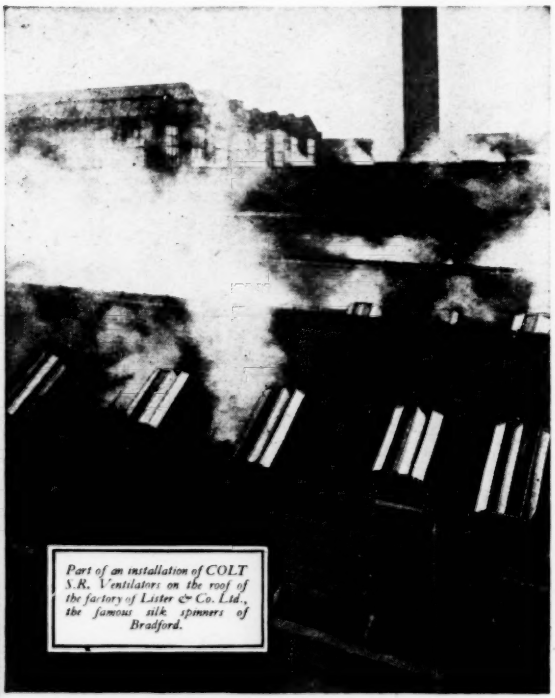

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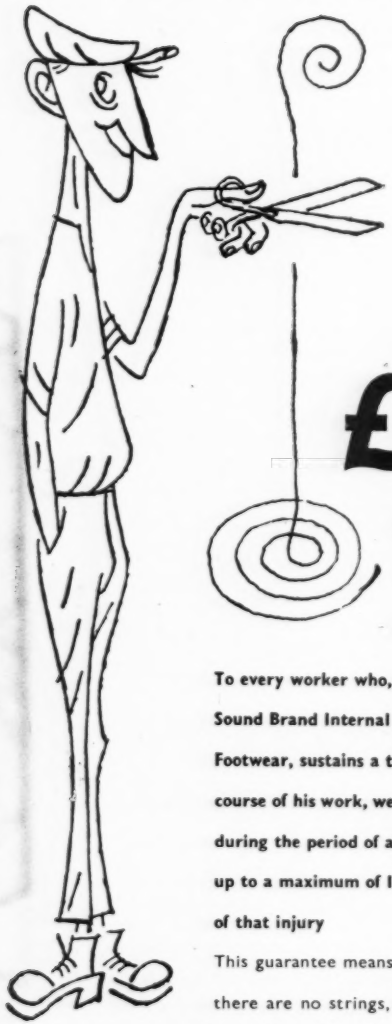

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# PERSONNEL MANAGEMENT WELFARE AND INDUSTRIAL EQUIPMENT

INCORPORATING *Civil Defence Journal and A.R.P. & N.F.S. Review*

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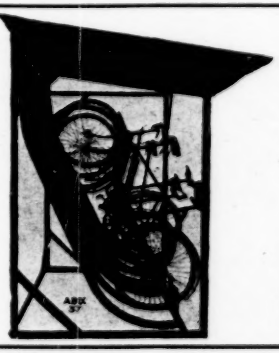

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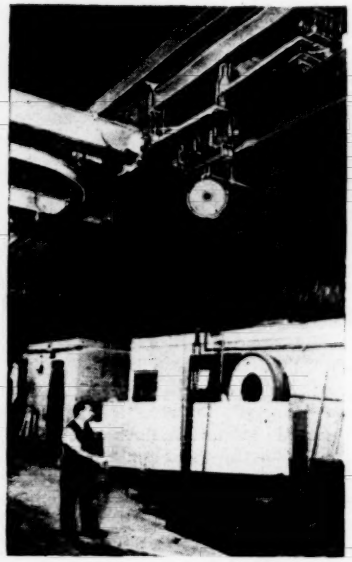


# Up-to-date Mechanical Handling — Best Single Way to Raise Productivity and Lower Costs

By **F. T. DEAN**, *M.I.Mech.E., M.I.Prod.E.*
*Chief of Materials Handling Advisory Department, Geo. W. King Ltd.*

**Almost every handling problem can be solved by mechanical aids—with benefit to management and worker. Here an expert describes the many types of equipment available, with instances of some of the jobs they can do.**

IT is now a generally recognised fact that the standard of living of the people of these islands can only be maintained or improved by an increase of productivity, and it is therefore in everybody's interest to know something of ways whereby productivity can be increased.

A number of teams from various industries have visited the United States to study productivity in industries similar to their own, and they have all reported that a much greater use was made of materials handling equipment. For this reason a special team was sent out to study materials handling and in their report they stated that better materials handling offers more scope for reducing costs and increasing productivity than any other single factor. They also reported that they saw no types of materials handling equipment in the United States that are not obtainable in this country.

This being so, it is worth while to know something of the various types of materials handling equipment that are available, and what they can do.

To begin with, materials handling equipment can be divided into three groups, gravity-operated, hand-operated and power-operated.

The first and smallest group consists of simple timber or metal inclined chutes, either straight or spiral, and roller conveyors. Chutes require a fairly steep incline, but will handle a wide range of materials and packages with perfect safety. The spiral chute is particularly valuable in a confined space for lowering good distances with very little horizontal movement. Owing to the steep incline required for straight chutes, they are replaced by gravity roller conveyors whenever much horizontal movement is required.

Gravity roller conveyors are very simple and quite cheap, and will carry fairly heavy loads over long distances, requiring a fall of 3 per cent to 5 per cent or, say, half-an-inch per foot run. For particularly long runs, power-operated booster elevators are placed at intervals to raise the articles to a desired height before allowing them to run down again by gravity.

The next group, the hand-operated, has a slightly wider range, taking in overhead monorail runways, pulley blocks, light cranes, and various types of trucks. The first, the overhead runways, are either standard rolled steel joists or special steel sections, supported from the roof steelwork or specially made structures. Switches and turntables can be supplied, and weighing machines can be incorporated so that goods can be weighed without taking them out of the system. Hand-operated pulley blocks are attached to the trolleys that run on these

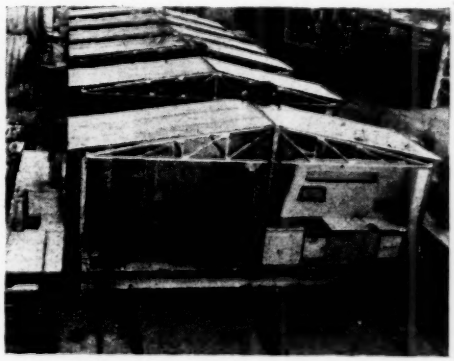
**Top of page, overhead monorail runway for hand operation.**

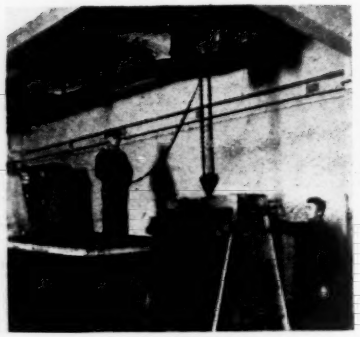
**Right, single strand floor conveyor handling large units.**

★

**COVER 1**

**Mechanical handling in this bindery has greatly increased output from 500 to 2,000 sections per hour.** *(Courtesy: J. Collis and Sons Ltd.)*





Overhead monorail runway fitted with electric pulley block.

10-ton capacity all-electric cab operated double lattice girder type over-slung gantry crane, working in a north of England engineering shop.

runways, or in some cases special carriers or containers are used. (*Picture at top of previous page.*)

Light, hand-operated cranes are only an extension of the monorail runways and the two may be operated together very successfully to cover a wide area. Hand-operated trucks are too familiar to need description and there are, of course, large numbers of different types.

Power-operated equipment forms the largest group of all and may be divided again into three groups, i.e. floor type, elevating type and overhead type. In the first group the simple belt conveyor is perhaps the most common of the conveyor group. Flat belts are used for handling packages of various types and individual articles, and troughed belts are used for handling bulk materials like coal, coke, sand or grain.

For heavier loads, slat conveyors are used, and these consist of timber or metal slats joined together by chains like the escalators with which everybody is familiar. Slat conveyors are particularly useful for assembly lines, as the parts to be used can be fed on in sets at one end, and the assembly fixtures can be fixed to the slats at the appropriate intervals.

For dealing with still larger units, a single strand or double strand chain conveyor is used. In the case of the single strand conveyor the article which is being assembled is usually mounted on a truck which is towed by the chain, and articles as large as the sections of prefabricated bungalows can be handled in this way. (*Picture, bottom of previous page.*)

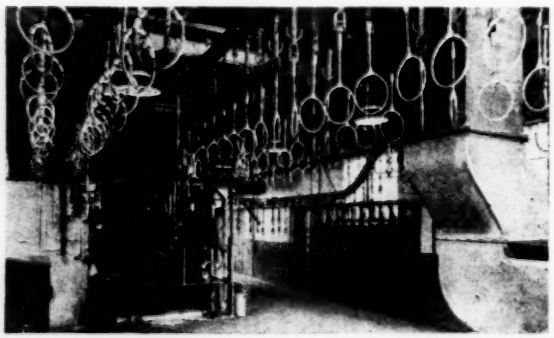
When a double strand conveyor is used the units which are being assembled rest on the chains, and the height of the conveyor is made to suit.

The next group embraces elevators of various types. These can be made with belts or chains and buckets or trays. Swing tray elevators can handle regular packages of various shapes and sizes, and a certain amount of automatic loading and unloading can be done.

The last group of power-operated conveyors is the overhead group, and the simplest form is the power-operated monorail runway, which consists of the usual form of runway fitted with an electric pulley block, with or without electric travelling gear (*above, left*). For short lengths of travel the electric power may be supplied from a festooned cable or a reeling drum. For longer lengths, and through switches and turntables, busbars are used in a way very similar to the manner of supplying power to trolley buses. Various sizes of electric pulley blocks can be obtained to lift loads of from 200 lb. to 10 tons.

Overhead travelling cranes are a more complicated version of the monorail runway, covering a wider area, but doing a similar job. (*Picture above.*) They can be designed to lift loads of several hundred tons. It is possible to arrange for certain types of overhead cranes to be joined to overhead monorail runways with automatic latches, so that the trolleys and pulley blocks can pass from the crane to the runway and vice versa. Unfortunately, one hears of cases where cranes and pulley blocks are made to lift loads greater than those for which they were designed, and although manufacturers always allow a generous margin of safety, it should be remembered that no crane or pulley block should ever be used to lift a load greater than that marked on it as its safe working load.

The other important type in the overhead group is the continuous chain conveyor, which can be of the monorail or twin-rail type. Dealing first with the former (*picture, left*), this consists of a series of trolleys which run on an overhead rail and which are connected by a continuous chain. The loads to be carried are

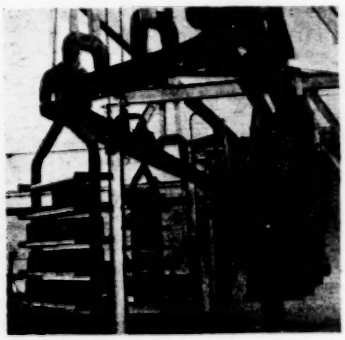


Overhead monorail chain conveyor, carrying tennis rackets through automatic painting plant.

suspended from these trolleys by means of suitable slings or carriers, and the conveyor chains are of the universal type so that the track rails may be bent in both the horizontal and vertical planes. Conveyors of this type can handle loads of a few pounds to one ton per trolley, and the trolleys are usually spaced at intervals of about 3 ft.

On the twin-rail overhead chain conveyor (*below*), the trolleys which carry the loads run on four wheels, and they are not attached to the chain, although they are propelled by it. By this means, heavier and more bulky loads can be dealt with, as the trolleys can be diverted on to sidings for loading and unloading. A number of complicated operations can be carried out with conveyors of this type and a good deal more will be heard of them during the coming years.

In addition to all these types of conveyors and runways there are on the market numbers of different types of power-operated trucks.



**Twin-rail overhead chain conveyor, carrying ceramic materials.**

Among these is the fork lift truck, which has come into great prominence during the last few years. The advent of this type of truck has led to a good deal of palletisation of unit loads and there is no doubt that this method of materials handling will be developed a good deal in the future.

There are many types of mechanical handling equipment available in this country and it is worth while to make sure that the type of equipment which one is using for a particular operation is the most suitable one. In addition to this, it is important that the equipment should be used in the correct manner to avoid any possibility of accidents.

## *This Welfare Shop Pays Dividends*

# How to Improve Dress—and Output—of Workers

By **CHRISTINA HYDE**, *of Birmid Industries Ltd.*

**One firm has both increased efficiency and reduced accidents by encouraging workers to dress better while on the job. A welfare shop inside the factory sells best grade goods at cost price, in pleasant conditions—and in the company's time.**

ONE of the many tasks of the welfare officer is to encourage better habits in the choice and use of working kit—overalls, footwear and so on.

Useless, of course, to argue or to preach. We have made it worth while for workers to co-operate. *Quite simply, we have opened a welfare shop, which sells, in works time, under exceptionally pleasant conditions, best grade goods at cost price.*

The firm erected a roomy, two-sectioned building, the front part of which has normal shop fittings of counter, seats, etc., the back being shelved and cupboarded as a storage place. Warm, well-lit, attractively coloured, the shop is open on Friday afternoons (the day being chosen to align with pay packets) and employees can shop in the firm's time.

Every article is sold at cost price, so that the firm carries all overheads of shop premises and wages of shop assistants (cloakroom attendants from the welfare department, specially trained for this extra, one-afternoon-a-week duty). The goods themselves are not subsidised. Wide and, one hopes, intelligent trial and error in buying now means that the best at the price is offered. The stock comprises overalls of all kinds, safety boots and shoes, working trousers, rubber wellingtons, working shirts, and on occasions a "special offer" of some stock such as ex-Government mackintoshes. The watchwords of the welfare shop are "working efficiency."

It soon became clear to employees, who are no fools where prices are concerned, that here were overalls, boots and shoes at charges less than those in ordinary shops and that quality was sound. Weekly shoppers increased. It also became clear, especially to the men, who find it difficult or irksome to journey into town on Saturday afternoons (the only shopping day left to workers doing a 47-hour week), that it really was easy and convenient to go out of the department for five minutes, choose a bib and brace or drill shirt without the "missus" having to advise, and get back on the job with no wage lost.

As for the women, to whom a subtler approach was necessary, efforts have been made in wily fashion to tempt them from the down-at-heel old dance slippers, the wisps of cotton frock and the frail pinarettes that ranked as workwear, by securing attractive slacks and well-cut, flat-heeled shoes, and by establishing a small "millinery boudoir" where various styles in protective headwear can be tried on.

### *Foot Accidents Reduced*

The result is indubitably a raising of the standard of taste. Better overalls and better footwear are being worn, and shoddy rubbish is being avoided. There is a generally heightened consciousness of kit efficiency.

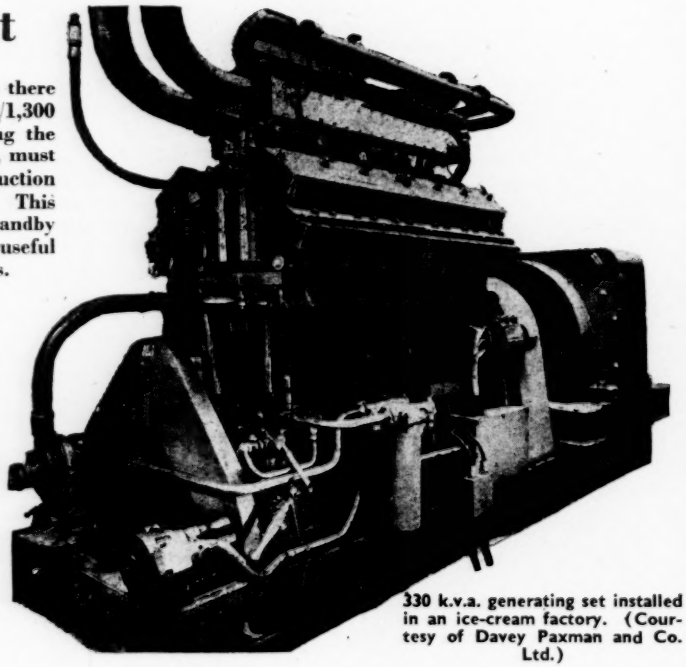
It may not be outstandingly important, but it is these details which add to that intangible thing called morale. The results are also calculably valuable in the lowering of the rate of foot accidents. *This method has, in fact, been the outstandingly successful one of the many that have been tried to foster the safety footwear habit. Mere exhortation got nowhere.*

*Be Prepared for Power Cuts*

# Emergency Current for 1·4 Pence a Unit

**British Electricity Authority estimate that there will be an overall current deficit of 1,200/1,300 megawatts in average cold weather during the coming winter. Managements, therefore, must look for alternative means of keeping production going and their workers fully employed. This article examines the cost of installing standby generators, and explains how these useful machines can help to cut overheads.**

By P. L. WOODALL, M.I.E.E.



330 k.v.a. generating set installed in an ice-cream factory. (Courtesy of Davey Paxman and Co. Ltd.)

FROM the recent Press announcements emanating from Government sources it would appear that, always depending upon the weather, we are faced with further power cuts not only during the coming winter but for several winters to come, and many power users are again contemplating installing their own independent power supply to limit the effects of such cuts.

The decision to install plant of this nature warrants careful consideration both from the economic and technical aspects. It is entirely wrong to install a set simply as an insurance against failure of the mains.

The effects of mains failure varies according to the particular requirements of each user and where continuous processes are involved, such as in breweries or brick kilns, a power failure may easily involve a considerable financial loss. For most of us, however, power cuts mean idle machines, with attendant loss in production and delays in executing contracts.

However, the primary reason for installing a generating set should not be as an insurance against stoppage but rather as a method of reducing the overheads by cutting the electricity bill which is forever mounting.

Therefore we give below some guidance in compiling a preliminary balance sheet.

## Capital Cost

The initial outlay will depend entirely on the power requirements and installation, both of which will be dealt with later in this article. Therefore we take a hypothetical case of a 250 kw. machine installed exclusive of building at £7,500.

## Annual Cost

The life of the plant should be indefinite but for depreciation purposes we suggest 15 years.

Therefore making all allowances the annual cost should work out at:

Depreciation (7½ per cent).
Interest (4 per cent).
Maintenance (2 per cent).
Insurance (2 per cent). £1,085.

## Running Costs

Based on the following assumed operating conditions:

*Running hours* 50 per week for 50 weeks per annum = 2,500 hours.

*Load factor* 75 per cent average.

*Units generated:* from the assumed load factor and total running hours 469,000 units will be generated per annum.

*Fuel consumption* approx. ·6 lb. per kw. hour.

$$\frac{469{,}000 \times \cdot 6}{2{,}240} = 126 \text{ tons.}$$

126 tons at £10 per ton = £1,260.

*Lubricating oil.*

2½ pints per hour = 781 gal.

Allowing for changing sump oil = 900 gal.

900 gal. at 4s. 6d. per gal. = £203.

*Labour*, part-time one unskilled man ... ... ... £100

*TOTAL EXPENDITURE* £2,650.

Price per unit 1·4 pence.

## Choice of Plant

The size of the plant depends entirely on the load carried by the factory, but where the load fluctuates widely it is wise to consider the advantages of installing two identical sets each running alternate days and both running in parallel during the peak load hours.

# *You Should Know these Facts about Standby Generators*

- **The effect of mains failure can be very serious, especially where continuous processes are involved.**
- **A generating set is not only an insurance against stoppage of work; it also helps to cut the electricity bill.**
- **Site your generator where it will cause least interference in the factory, office and surrounding neighbourhood.**
- **Check whether it is necessary to arrange with the local electricity authority for your plant to run parallel with the mains.**
- **Make use of heat losses for space-heating and hot water supply.**

There are many sets on the market and the manufacturers should be consulted direct or through their agents, who will give advice and assistance and also service after purchase—an important consideration.

Many sets now available are completely self-contained and installation difficulties are consequently diminished. The unit will consist of engine, radiator and alternator, all mounted on a combined underbase which can be set down in any convenient position and it will only be necessary to provide shelter, provision for leading away the exhaust gases, and coupling into the existing electrical system.

The site should, however, be carefully chosen, as no engine is entirely vibrationless or noiseless and it should therefore be housed where it will cause least interference with the surrounding factory, offices or residential districts. Noise or vibration transmitted through the buildings or foundations can be effectively damped out by special mountings, noise from the exhaust pipe by special silencing and fumes by careful siting.

If radiator cooling is provided, inlet and—no less important—outlet of air from the building should be catered for. Radiator and engine should be protected from the effects of frost.

## Operation of Plant

In these days of high labour charges the cost of an attendant is expensive and unnecessary. Therefore in our estimate of running costs, we have allowed for an unskilled man to start and stop the set, attend to the fuel and lubricating oil and generally keep the unit clean. The set should be in the charge of a conscientious man who will take a pride in attending to it.

Cleanliness is essential to a diesel engine. Oil (fuel or lubricating) spreads unnoticed, collecting dirt, hiding defects and increasing the danger of fire. With a light, well-ventilated engine room the defective pipe, loose nut or fractured wire can be at once seen and rectified.

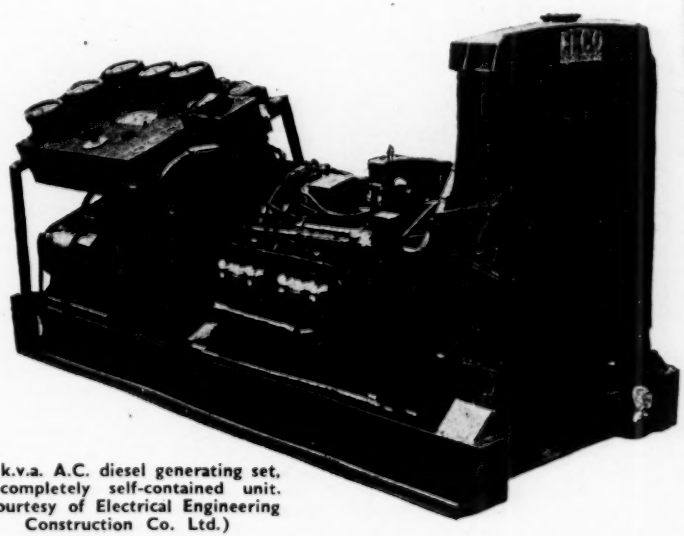
## Connecting to Mains

Where the circuit can be disconnected from the mains before the unit is started no difficulty is met; but where, as often happens, the set is started up each morning and essential services must be kept running during the periods of the changeover, it will be necessary to arrange with the local electricity board to permit the plant to run in parallel with the mains until the switch over is completed. With small sets, dealt with in the scope of this article, no difficulty should be experienced; but in larger installations of, say, 1,000 kw. and over, safeguards will be introduced to prevent the set exporting current to the incoming mains.

## Ancilliary Equipment

The question of cooling is one of great importance to the prospective user, the quantity of water varying between 10 and 15 gal. per b.h.p. per hour. The use of mains water is seldom to be recommended because of cost and the possibility of scale formation (depending upon the hardness of the water). Where water is plentiful, a closed system may be employed incorporating a heat exchanger which is circulated by raw or hard water. Similarly, raw water can be used to cool the lubricating oil. A radiator, if employed, can be driven either from the engine crankshaft or by separate electric motor,

(*Continued on page* 177.)



**75 k.v.a. A.C. diesel generating set, a completely self-contained unit. (Courtesy of Electrical Engineering Construction Co. Ltd.)**

# How to Plan and Equip Your Civil Defence Unit

## *4—Selection and Training of Instructors*

By JOHN O. BAKER, *Founder Fellow, Institute of Civil Defence, and Civil Defence Officer, South-east Ports*

THE training, which it is desirable should be undertaken by those enrolling for Civil Defence duties, can be grouped under two main headings:

1. That which is common to all.
2. That which is particular to members of each specific section, i.e. warden, rescue, ambulance, headquarters, etc.

Training which is common to all is covered by the following courses:

(a) Basic general Civil Defence which deals with atomic, biological and chemical warfare, high explosive missiles, fire, and general measures of protection against these hazards.
(b) First-aid.
(c) Basic rescue.

So far as the Civil Defence Corps is concerned, basic rescue training is not compulsory for members of all sections, but the official view is that as many as possible should take the instruction in it. *The Industrial Civil Defence Officer will be wise if he has basic rescue training given to all personnel,* irrespective of their section. The more who know something about practical rescue work, the greater will be their operational worth.

The greatest care should be taken in the selection of instructors to give the various types of Civil Defence training. Just having the "gift of the gab" is not sufficient. An instructor must not only know his subject. *He must also be able to put it over to others in an interesting manner.*

The next step is to find someone who is officially qualified to instruct in basic general Civil Defence, basic rescue and full rescue (which is applicable to members of rescue squads); and if there is no one available, to get the requisite number qualified. An instructor's certificate can be obtained in two ways—by attending a course at one of the Home Office technical training schools, which takes three-and-a-half weeks; or by attending a course locally, under the auspices of the local authority, which takes sixty-four hours.

The latter way is far quicker for there is a very long waiting list for entrance to the Home Office schools. The Civil Defence Officer should be approached to ascertain what facilities he can provide.

### *Training Timetable*

**Here is a timetable guide for the individual Civil Defence Officer. It shows the number of hours normally occupied in instructing personnel in the three courses common to all Civil Defence workers:**

| | |
|---|---|
| **Basic general course ...** | **22 hrs.** |
| **Basic rescue course ...** | **10 hrs.** |
| **First-aid course ... ...** | **12 hrs.** |
| **Total ... ... ...** | **44 hrs.** |

**Don't rush training, says the author of this article. Don't cram too much into too short a time. Variety in training keeps volunteers interested.**

For the general instructors' course, ten persons comprise a class, for the rescue instructors' course only eight, so it should not be difficult to find in almost any area an adequate number of individuals to form classes. How the instruction is undertaken is a matter of individual, local arrangement; one convenient method is to have one complete day's instruction each week for six weeks in the general instructors' course, and for ten weeks for the rescue instructors' course.

The basic general Civil Defence course occupies twenty-two hours instructional time, the basic rescue course ten hours, and the first-aid course twelve hours. Therefore each enrolled member requires common-to-all instruction over periods totalling forty-four hours. Classes should be limited to a maximum of twenty members.

The full rescue course, which occupies sixty-four hours, is to all intents and purposes the specialist training for the members of rescue squads. It is the only type of specialist training where the instructor must hold a specific, official qualification.

The section training given to members of the headquarters, warden, ambulance and fire sections covers the administrative and tactical fields and no one better qualified, nor more suitable, for giving this instruction should be found than the head of each particular section. The broad principles on which such training should be based will be found in the appropriate manuals issued by the Home Office, and published by the Stationery Office.

Until, or unless, circumstances suggest otherwise, training should not be rushed, nor too much crammed into too short a period of time, or volunteers will react badly. Variety is another point which should be borne in mind when working out the training plan. Don't have too much of the same thing, but vary training as much as possible, interspersing one type of training with another.

**NEXT MONTH — TRAINING SYLLABUSES.**

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### ATOM BLAST SHELTER TESTS

SECRET tests of atom bomb blast effects on shelters are to be held in Nevada, U.S.A. The British Home Office, already studying the subject theoretically, will be told of the results, it is understood.

**Peace and quiet: this is what most people need at least once during the working day. And this is what they get in the new lounge and rest room at Bentalls, Kingston-on-Thames department store. Bentalls have a generous employment policy, features of which also include joint consultation, pension and superannuation schemes, medical care, sports grounds and a fine staff cafeteria. Chairman and managing director of the company is Mr. Gerald C. Bentall, C.B.E.**

# *Making it a Job for Life*

THE Esso refinery at Fawley is faced with the task of building up its labour force from 1,000 to over 2,000 in the next three years. Fawley, a village sixteen miles from Southampton, has no special amenities likely to attract workers to the district. The work, while well paid, offers no opportunities for earning extra money by increased production or overtime. Esso's answer to this problem is a comprehensive welfare programme.

The pension scheme started with a "prior service credit" which gave every employee 2 per cent of his earnings over the last five years. Thereafter, discounting the first £100 of his earnings to cover insurances, etc., he gets 3 per cent on £200, 4 per cent on £300, 5 per cent on £400. For example, an employee earning £500 a year is entitled to a credit of £17 a year. On retirement he receives a bonus of 2 per cent of his average earnings during his whole period of employment, and a pension rising to a maximum of two-thirds of his salary at date of retirement. Should an employee die before retiring age, his wife gets 50 per cent of her husband's pension bonus, and 50 per cent of a pension proportionate to that he would have received had he stayed with the firm until normal retirement age.

Sickness benefit is also based on length of service. Thus, a man with under six months' service gets one week on full pay and two on half pay; over four years' service, nine weeks' full pay and eleven weeks' half pay; over ten years' service, thirteen weeks' full pay and thirty-nine weeks' half pay. Intermediate periods of service are graded accordingly.

"Coin Your Ideas" is the name given to the suggestion scheme, which has yielded 100 ideas in the last year. If a suggestion is adopted an immediate award of £2 10s. is given, with a further percentage award after the first year's operation.

A cinema to seat 450 people, a new canteen, sports and social clubs providing facilities for billiards, cricket, tennis, bowls, football, hockey, archery, sailing and shooting, are added attractions offered by the firm.

(Condensed from *Business*, September, 1951.)

* * *

## *"Working Together"*

THIS is the title of an excellent handbook provided by Carreras Ltd., for the guidance of their employees. It is attractively produced, well illustrated, clear and comprehensive.

This firm, connected with the tobacco industry for over 160 years, is one of the most progressive in its personnel work. Among the many facilities afforded employees are pensions, sickness payments, an incentive bonus scheme, educational grants for employees' children, assistance with house purchase, legal advice, library, medical services and convalescent home, training school, including training for supervision and management, canteens, and social and athletic clubs.

* * *

## *Good Night Shift*

THE necessity of introducing night shifts has been engaging the minds of many employers. Pratt and Whitney Aircraft, U.S.A., have done it successfully by trying to staff their night shifts with people who find the unusual hours convenient, and really want to work night shift. A large proportion of these are housewives, whose other duties claim them by day, while some men prefer their recreation during the day and are willing to work at night.

Secondly, they duplicate every service offered on the day shift. Hot meals are served in the canteen, the medical service operates, the same recreational facilities are available, and shows, parties and other activities are organised as during the day.

The biggest danger to the spirit of night workers is the "graveyard shift" approach. If the night shift is treated as an extra and not expected or required to keep up with the other shifts, it will show in the results. If the aims and production levels are kept on an equal plane—and all other things are kept as equal as possible—night shift "problems" will solve themselves.

(Condensed from *Supervision*, July.)

* * *

## *Why Did You Leave?*

MANY companies interview employees when they voluntarily leave in an effort to determine their real reasons for doing so. The Hand Knit Hosiery Co., Wisconsin, goes further, and follows up the exit interview with a questionnaire sent to the employee's home after he has left. The company argues that once away from the plant, employees are more likely to be frank about things. About 65 per cent of these questionnaires are returned and most of the 44 questions are answered.

Replies to the last question—"Why are you leaving?"—have produced much useful information, and employees often add comments to the "yes" or

**A new type of safety knife for cutting rubber has been patented by Dunlop, and is being tried out at their works. The blade is detachable and held in position by a peg in one of a series of holes. A wheel protects the end of the blade, but pressure against the spring leaves the end of the knife free for cutting, the wheel returning to position when pressure is removed.**

"no" required in answer to the other questions.

Completed questionnaires are routed to management. The returns are also broken down by departments so that each foreman can see his record in relation to the whole plant, and learn the good as well as the bad points noted. To see yourselves as your employees see you is a very valuable guide in building good relations.

(Condensed from *Factory Management and Maintenance*, July.)

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## Employees' Shares Scheme

WHEN introducing an employees' shares scheme last year, the directors of Universal Grinding Wheel Co. Ltd. took care to ensure that it would be not only advantageous and simple, but would also safeguard employees against financial loss. Any full-time employee over 21, who has been in the company's employ five years or more, can buy shares. Employees with over five and under ten years' service can buy up to 100 shares, between ten and fifteen years' service up to 200 shares, and so on until those with over twenty years' service may hold 400 shares.

To implement this scheme, 100,000 ordinary shares were converted into "employee shares" and issued only to employees. They have a nominal value of 5s., but their price has been permanently fixed at 10s. (The present market price of ordinary shares is 31s. 4d.) Employee shares carry the same dividend rights as ordinary shares. In the event of the company being wound up they rank as ordinary shares for repayment of capital, 5s. per share, but may only participate in any surplus assets up to a maximum of a further 5s. Holders may not attend or vote at general meetings. Employees may sell back shares at any time, at the fixed price of 10s., and the share trustees are bound to buy them. Any employee leaving the company must sell back his shares within one year.

For the year ended September, 1950, dividend on ordinary shares was 15 per cent, free of income tax. At the same rate, the return on a 10s. share is 7½ per cent, free of income tax, which is equivalent to approximately 13½ per cent, less tax. This is over three times the return received by holders of ordinary shares bought at present market price.

(Condensed from *The Manager*, July, 1951.)

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## Neighbours in Industry

IN their main Birmingham works the Joseph Lucas organisation is conducting an experiment to obtain more women workers. An appeal has been made to mothers whose children have passed school age, to undertake part-time work for four hours a day, and a scheme whereby groups of friends or neighbours can work together is proving popular.

Several grandmothers are included in the new "groups." The scheme may be extended to others of the company's factories.

**David Brown Tractors XI, captained by J. Whitehead, general manager (front row, centre), has completed a week's cricket tour of Sussex and the South. Among their opponents were a Sussex Farmers' XI, selected by Maurice Tate, and the works team of Aspro Ltd.**

# News from House Magazines

**The Bulletin** (Johnson, Matthey and Co. Ltd.).—Aim of a new works pension scheme is to provide, after 40 years' service, a pension which with the State allowance will equal two-thirds of the employee's final wage at pensionable age. Women aged 20 and men aged 25, with one year's service, are eligible to join, and membership will in future be a condition of employment.

**Intercom** (Igranic Electric Co. Ltd.).—A cheque for £120 has been given to a member of the inspection department for a suggestion that deflector coil laminations should be produced in the works on a high-speed Rhodes press instead of being bought. This is the highest award ever made under the firm's suggestions scheme.

**News Letter** (David Brown Group).—The David Brown Tractor Group has submitted a scheme for establishing a housing association in Meltham. The scheme has been approved by the Urban District Council, and should greatly assist the Council as a large proportion of their applicants for housing are David Brown employees.

**The Phoenix Gazette** (Steel, Peech and Tozer).—A new Amenity Building, claimed to be the last word in equipment and design, has been opened. It has 640 air-conditioned lockers, showers, sanitary facilities, a messroom to seat 170, and a foremen's room. The opening ceremony was performed by one of the workers. A full-time doctor is to be appointed for one year, to do research on the health of men in the bricklayers' department. Preliminary work with chest X-ray, to check the effects of dust, has already been undertaken. A further group of volunteers from a non-dusty department has been secured as a control for the proposed tests.

**Thorncliffe News** (Newton Chambers and Co. Ltd.).—In addition to the numerous activities of the children's sick fund, special benefits are given in needy cases. Two cases of long and continued family illness (one family of five children and another of three) have recently benefited by being taken for caravan holidays by the sea. All the children's expenses were met by the fund.

## Workers' Trip to Paris

AS a reward for achieving greater output seven months of this year than they did in the whole of last year, sixty-two employees of Cosley Engineering Co., Lanesfield, Wolverhampton, flew to Paris for the day on September 8, at the firm's expense.

# How to Save Money and Time in Repair of Protective Clothing

By JOHN SPENCE

★ **Cost-conscious executives will find many practical and specific hints in this article. Here an expert tells how to give that "stitch-in-time" which will prolong the life of protective clothing. Such repair equipment as is necessary soon pays for itself.**

PROTECTIVE clothing, footwear, goggles and gloves can assist in raising output and reducing accidents. But if not properly serviced they can waste money, endanger health and increase the accident rate.

The first essential with all protective clothing or devices is cleanliness and appearance. If a garment is clean and in good repair the worker tends to take care of it. A fabric garment which is regularly washed will last three times as long as one which is just worn to destruction, for dust and metal particles cut the fibres, while oil rots the cloth.

Firms can save money by doing their own laundering. When garments are being folded after washing it is easy for damage to be seen and for the boiler suit to be placed on one side for repair. The repairing section will require a sewing machine or machines of a heavier type than the normal domestic machine. It is worthwhile to have at least two power-driven machines so that one can be used for patching and the other for darning. Material from scrap garments can be used for patching, so, apart from thread, and a small amount of electricity, the only outlay is for labour. With boiler suits costing up to £2 each and woollen suits considerably more, it does not require many repairs or suits laundered each week to ensure an adequate return on the capital outlay and the weekly labour costs.

Even torn or slit plastic clothing can be repaired. For fibre-based garments two methods of repair are possible, patching by stitching or vulcanising. In the case of non-fibre base, sheet plastic, only vulcanising or a heat method is practicable.

For a sewn repair, tape, thread, dope and a sewing machine are necessary. The manufacturer or supplier of the garment can advise on the type of thread to use and the dope with which to paint the seam afterwards. The heat method requires a small vulcanising machine on the anvil of which the damaged area is rested. A piece of a similar plastic is placed over the hole, the two pieces of material are then clamped together, heat applied and after a few minutes garment and patch are welded together. Rubber clothing can be repaired in a similar manner. With both rubber and plastic the repair will be acid proof and will not weaken the garment.

The life of plastic clothing will be lengthened if proper storage is available so that the garments can be hung up after use and attention given to their cleanliness. Prompt removal of contamination should be encouraged. A booklet on the storage and cleansing of plastic clothing and gloves is available and a copy will be sent if application is made to the Editor of this journal.

Money can also be saved if central washing facilities for plastic gloves are installed. In one such installation some 150 pairs of gloves are washed daily. The whole service—collection, washing and delivery—is done by one man. Not only does regular washing add to the life of the gloves but as in most cases only one glove has a hole when the pair of gloves are due for scrapping, the undamaged gloves are recovered, paired up and re-issued. Recently, from 70 pairs of damaged gloves handed in at the stores in exchange for new ones it was possible to complete 25 pairs and to have three odd gloves over. The manufacturers are prepared to supply odd left or right hand gloves. With plastic gloves costing 10s. 6d. to 13s. a pair the value and importance of salvage is apparent.

One method used for washing plastic gloves is as follows. The gloves are placed in a tank containing water at about 130° to 140° F. to which a detergent has been added, and are then vigorously agitated for 15 minutes, passed through a wringing machine, fingers first, and allowed to fall into a rinsing tank which contains a very small amount of detergent. After further washing and agitating they are then put through the wringer again and hung up to dry in a warm atmosphere. The drying procedure can be expedited if they can be placed in a warm drying chamber or closet.

To ensure that a man receives back his own gloves it is as well either to stencil in his clock number on the inside of the cuff or to affix a small metal number plate with two

## ★ *8 Ways to Make that Stitch-in-time*

1. **USE** material from scrap garments for patching.
2. **SEEK** the maker's advice on thread and "dope" to use for plastic clothing repairs.
3. **PROVIDE** proper storage space—garments last longer if hung up after use.
4. **WASH** regularly—this prolongs life, particularly with such items as plastic gloves.
5. **SALVAGE** all odd gloves and pair them—usually only one glove of a pair is damaged.
6. **FIT** employees with correct sizes—the right fit ensures longer wear.
7. **DRESS** leather items with oil or dubbin to make them supple.
8. **SERVICE** and sterilise goggles and industrial spectacles regularly.

bifurcated rivets adjacent to the seam on the cuff edge. A metal number plate properly affixed does not damage the glove or the rollers of the wringer.

Always fit the employee with the correct size of glove. The glove which is too small bursts or tears, generally at the thumb; the too large glove develops folds which wear very quickly.

Leather gloves frequently burst at the seams and if a leather stitching machine is available, repairs can be quickly and economically made. An occasional dressing with a suitable oil or dubbin will help the leather to retain its suppleness and lengthen its life.

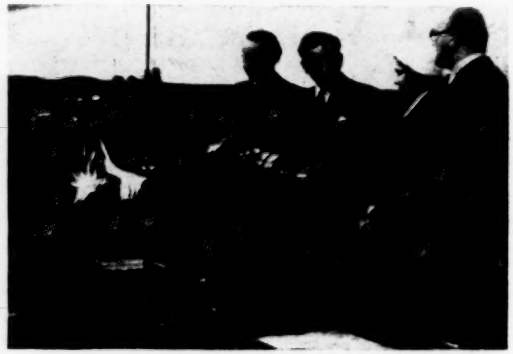
Rubber footwear is expensive to purchase and repair. But the repair bill can be slashed if the repairs are undertaken in the works. A process of cold "vulcanising" is available which will allow a cleated sole and heel to be attached to a pair of rubber boots at a cost of from 7s. 6d. to 10s. for labour and material.

### *Lunch-hour Repairs*

Clogs and leather boots are repaired in many works. In one shop, for example, two or three men mend several hundred pairs per week. The cost of repairs is much lower than if the work was sent out and, what is of even greater importance, a really prompt service is given. Clogs can be left during the lunch break and are returned re-ironed at the end of the period. The work has been time-studied. A bonus is paid on output and a figure of approximately 1s. 4d. has been found to be the labour and material cost for the replacement of a set of four clog irons.

Leather boots are also repaired but here a capital outlay of some £200 to £300 is essential for the machinery. This will enable one man to cope with fifty to seventy pairs of boots a week dependent on type of finish.

Expenditure on goggles and industrial spectacles can be reduced by regular servicing and sterilisation. All damaged goggles should be returned to a central depot where a new pair are issued in exchange for the old ones. At the central depot there should be facilities and spare parts for replacing damaged frames, side-arms, lenses or eye pieces and elastic head bands. Little service equipment is needed beyond screwdrivers and a small hand vice.



**Mr. B. H. Turpin, technical and sales director, and Mr. E. S. Pearse, works manager, show visitors round the factory.** (Photo: "Stone Guardian.")

# Training Green Labour to Do Skilled Work

**By ARTHUR COCHRANE, M.I.M.E.**

*Director, Quickfit & Quartz Ltd., and Assistant Managing Director, Triplex Safety Glass Co. Ltd.*

**Prevented by the housing shortage from importing skilled labour into their new factory, Quickfit & Quartz Ltd., industrial glass makers, recruited their employees locally. This is how they taught "green" workers to do skilled jobs efficiently and well.**

THE training scheme devised by Quickfit and Quartz Ltd. is probably unique in the industry. It is concerned only with glass-blowers, for they are the "life blood" of the factory. But it is also a means of screening employees for other jobs, as those who fail to reach the top grade are transferred to sections more appropriate to their abilities.

When the parent company, Triplex Safety Glass Co. Ltd., began the establishment of the new firm at Stone, in Staffordshire, they sent, as the basis of their labour force, two executives from their Kings Norton factory. That was in August, 1946; today, Quickfit and Quartz employ about 250 people.

As nearly every operation in the production of glassware calls for some skill and a five years' apprenticeship for first-class glass-blowers is usually regarded as a minimum, the recruitment and training of suitable labour presented many problems.

The housing shortage prevented the importation of skilled labour from other areas, and the company had to fall back on training local people whose previous experience had mainly been limited to the production of beer and boots, for which the town of Stone is famous. They were, however, able to call upon some of the former employees of a safety glass factory housed at Stone before the war. These men had some experience of safety glass manufacture; they knew what glass was, but they had no idea how to manufacture it into complicated scientific apparatus.

Here is the basis of the scheme which, since those early days, has been producing a constant flow of trained labour to all production departments.

The whole range of standard products is broken down into an appropriate number of grades, each comprising jobs requiring approximately the same amount of skill. Grade A would include jobs calling for the simplest of operations, e.g. preparing small parts for key handles and sealing-off stoppers. Grade B jobs would be more difficult, like the manufacture of simple joints and bends, small stillheads and stop-

## The Training Scheme in Brief

1. **Work split into five grades, each comprising jobs of comparable skill.**
2. **Each grade further broken down into job groups of similar operations.**
3. **Basic pay rate for any grade the *training* rate for the grade immediately above.**
4. **Those who fail to reach the top grade given work within their capabilities.**
5. **Training kept separate from production.**

cocks. There are five grades in all, and the highest includes such intricate work as the making of double coil condensers.

Each grade is broken down further into job groups, which consist of jobs requiring similar operations and for which training on one job would suffice for all in that particular group.

A period of time is decided upon as being optimum for training on each job group, and the total training time for each grade can then be arrived at.

Each grade carries a basic rate and the rate for any particular grade is also used as a training rate for the grade immediately above. A special starting rate is set as a training rate for grade A and would be something less than the basic rate for that grade.

In practice, the trainee is accepted into the training school and is paid the training rate for grade A. Preliminary training is given first with the object of familiarising the trainee with tools and materials and this is followed by systematic training on each job group until the instructor is satisfied that the learner is capable of earning production bonus on every job. He is then passed out to the production department to grade A operator and receives the rate for that grade, plus production bonus.

At the appropriate time the operator is passed back to the training department as a grade B trainee at the base rate for grade A. The systematic training on all job groups in grade B is then followed until the trainee is passed back again to the production department as a grade B operator and paid at grade B rate, plus bonus. This procedure is followed for all succeeding grades.

It will be noted that the training department is entirely separated from production, although a certain amount of saleable items are produced. Scrap material is used wherever possible, with a production job given as a final test in each job group.

Some men have risen through the whole five grades in as little as twelve to fourteen months, and the scheme has proved so successful that only 16 per cent of recruits have failed to qualify in one grade or another, whereas formerly the percentage failing was extremely high.

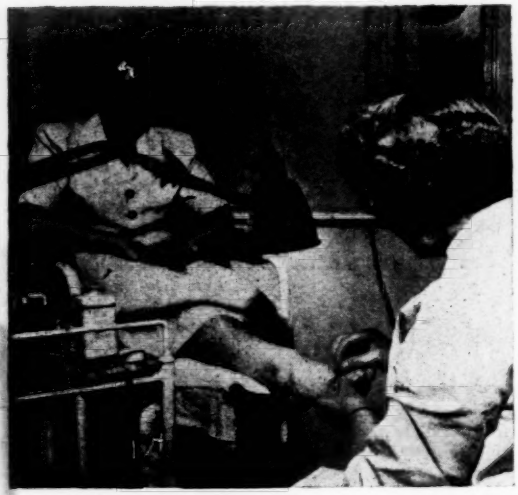
While the training scheme is open to all new recruits, whether school-leavers or adults, experience has shown that generally the younger recruits learn more quickly and finally acquire a greater skill than the men who have spent some years in other industries. The firm aims to increase the number of school-leavers and gradually decrease the proportion of adult trainees.

The employees themselves have expressed satisfaction with the scheme, and there is no difficulty in persuading them to move back to the training department after being in one of the production departments, as they appreciate that they are being given the opportunity to increase their wages and prospects as soon as they qualify for the next grade. Men who appear to have "stuck" at a particular grade for some time are often influenced by some personal incentive, such as marriage, to try again for a higher grade. They are always encouraged to do so.

Considerable extensions to the Stone factory are planned and the labour force will have to be increased still further, but we are confident that this training scheme will meet the demand for skilled workers. It is under the direct supervision of Mr. B. H. Turpin, technical and sales director, and Mr. E. S. Pearse, works manager. There is no comprehensive personnel department in operation, although there is the nucleus of such a section dealing with certain routine details and, during the build-up at Stone, assistance in many matters has been given by the personnel department of the parent company.

It is the established policy of the Triplex group that the closest possible contact shall be maintained at all times between directors, managers and all employees to ensure that everyone in the organisation knows what is demanded of him, and why. It is a priority job for local management to carry out this policy so that all employees down to the newest recruit feel they are members of a team.

**Local labour quickly responded to the needs of a new factory.**



# These Girl Workers Stand at Ease— 5½ Days a Week

By PAUL NUGAT

**A chain store firm faced an organisational problem in providing a chiropody service for assistants. Of their 200-odd stores, spread over the country, some employ 350 girls, others are too small to justify individual visits by a chiropodist. This is how they solved the problem.**

WHEN the directors of Marks and Spencer Ltd. decided—four years ago—that employees in their 200 and more stores, as well as office staffs, should be given the opportunity of getting foot treatment during working hours, the yardstick for justifying the expenses involved was held to be, quite simply, the employees' appreciation, measured by the extent to which the service was voluntarily made use of.

The task of initiating and controlling this far-flung foot service is the responsibility of Dr. M. Oldershaw, chief medical officer. Organisationally, the task was far more complicated than it would be in a factory, where the personnel are concentrated and where the solution lies in setting up one clinic with a chiropodist in permanent attendance. In the first place, some Marks and Spencer stores employ 300 to 350 people, while others are staffed by thirty to forty. As the latter could not justify the regular visits of a chiropodist, alternative schemes were devised.

Scheme A operates on a sessional basis. The chiropodists concerned work a four-day week, with two sessions of three hours each per day. Their itinerary is necessarily flexible. In most cases, they will have a number of stores to cover in the course of a month, with here and there an additional session whenever the waiting list for treatment warrants it. On the basis of the returns made by each chiropodist, the chief medical officer is in a position to control and devise the schedule of work of every chiropodist working under scheme A throughout the country. This scheme embraces all the forty London stores and larger provincial stores.

For the employees of the smaller stores, where the demand for foot treatment could not justify the visit of a chiropodist, scheme B provides the facilities for an employee to visit a chiropodist during her working hours. The cost is borne by the firm, a very nominal deduction being made from her wages by the staff manageresses in order to enhance awareness of the benefits involved. Were a plea of hardship to be entered, this deduction would be waived.

## *Routine Examination*

Popularising the idea of seeking foot treatment presented no real difficulties. Throughout the nation, aching feet are one of the commonest complaints. To the girl who spends most of her working hours standing behind a counter, defective feet and ill-chosen and ill-fitting footwear are more than just an irritant.

Each new employee receives a routine medical examination and attends a series of health lectures. A high proportion of these entrants are young girls of school-leaving age, possessing all the vanities of youth, in which a tendency to choose footwear for its decorative effect rather than for its fit is all too apparent. Few girls have a pair of perfect feet. Athlete's foot is rampant, together with such ailments as inturned ankles, hammer toes, ingrowing toenails, flat feet and callouses. The alternative to providing occupational footwear in the firm itself—an idea which must be discarded where personnel turnover must inevitably be high—is an advice service.

After the routine medical inspection, employees in need of orthopædic treatment are sent to specialists. No chiropodist is allowed to provide supports for fallen arches without the consent of the store doctor or the employee's own doctor. The remainder are advised, but not compelled, to attend a chiropodist's session, are advised on the purchasing of footwear for comfort, hygiene and wearability, and are given instruction in foot exercises which can be performed while the patient is dressing in the mornings.

The success of this programme can best be measured by the use made of it last year. 21,853 treatments were given; average time of treatment—twenty to thirty minutes. A minimum of working time is lost by employing a runner while the chiropodist is in attendance, to call the next patient. Were the value of this health plan to be measured by another standard, such as the reduction in absenteeism, the result would be equally impressive.

# *Labour — Scarcer and Older*

DESPITE an increase of 218,000 in the total working population in 1950, growing demands upon the country's manpower resources made it necessary for the Ministry of Labour to seek new sources of labour. Surveys showed that the most likely reserves might be among women available for part-time work, and the employment of older people. Additional labour was provided by students' vacation employment schemes, prison labour, assistance from H.M. Forces, and recruits from Northern Ireland, Eire and Europe. Production for defence was only beginning to be felt at the end of the year and it was obvious that more acute shortages were likely to develop.

The Ministry made special efforts to encourage the employment of older workers. The Annual Report for 1950 states that the proportion of the total working population under forty is likely to decline for some years, while the increased strength of the armed forces is likely to deplete even further the younger age groups available to industry.

Employers unwilling to consider people over forty are restricting their search for likely candidates to a progressively smaller field, and may possibly lose people of superior qualifications and wider experience.

The flow of young entrants to employment is still limited by the low birthrate of the 1930's and the situation will not improve until 1957.

Unemployment remained at a low level and never exceeded 1.8 per cent. Those registered at December, 1950, showed that nearly 60 per cent of the men were aged over forty; the average age of unemployed females was considerably lower, the proportion over forty being 38 per cent.

Time lost through industrial disputes was the lowest on record since 1941.

The Report also deals with the work of the appointments departments, resettlement and training schemes, conciliation and arbitration, the personnel advisory service, wages councils and catering wages boards, "outside welfare," and the Ministry's responsibilities for international labour relations.

(*Ministry of Labour and National Service, Report for the Year* 1950. (*Cmd.* 8338.) *H.M.S.O.* 8*s.*)

## WAGES NEWS AND VIEWS

**AGRICULTURAL WORKERS**—Central Agricultural Wages Board has decided to grant wage increases of 8s. a week to men, 6s. to women, with proportionate increases in overtime and holiday pay. Annual holidays will be increased from seven to twelve working days, but weekly hours of work remain at forty-seven. The Board will meet on October 10, to consider any objection.

**B.B.C. WORKERS**—Wage increases of 11s. to 18s. a week have been granted to the B.B.C.'s 3,500 clerical and secretarial staff.

**COTTON SPINNERS**—20,000 operatives in the mule spinning section have been awarded an increase of 5 per cent on current earnings, and entitlement to a Christmas bonus; 50,000 card, ring and blowing room operatives have agreed to accept 1s. in the £ on eight months' earnings to the end of August.

**ELECTRICITY SUPPLY WORKERS**—120,000 manual workers employed by British Electricity Authority have received a pay increase of 2d. per hour.

**FILM WORKERS**—Over 2,000 technical and clerical workers in the film printing and processing laboratories have received pay increases of about 18s. for workers over 21, with proportionate increases for juniors. Cost of living bonus has been increased from 6d. to 1s. per point in the retail prices index.

**RAILWAY SHOPMEN**—Union representatives of 130,000 railway engineering shopmen have submitted a claim for a substantial wage increase.

**ROAD HAULAGE WORKERS**—200,000 road haulage workers receive increases of 7s. a week to adult workers, and 2s. 6d. to 6s. a week to juniors, under an Order giving effect to the Road Haulage Wages Council's proposals.

**SAVINGS WORKERS**—Civil Service Arbitration Tribunal has rejected the claim for pay increases submitted for National Savings' Workers.

**SEAMEN**—Annual meeting of The National Union of Seamen have proposed immediate negotiations for more pay to meet increased cost of living.

**TRANSPORT WORKERS** — The claim of 90,000 employees of privately owned passenger transport undertakings is to go to arbitration. The employers' offer was rejected by the union which demands an increase at least equal to that granted to municipal undertakings, i.e. 7s. 6d. to 11s. a week.

## Farm Workers' Call-up

AGRICULTURAL workers available for call-up on or after November 1, 1951, will be those born on or after January 1, 1933. Regular farm workers born before that date whose call-up was suspended under the old arrangements are not affected, so long as they remain in agriculture.

Certain exceptions may be made, such as men entering or re-entering the industry after completion of an agricultural training course at University or farm institute. Full details can be obtained in leaflet P.L. 341, obtainable from local offices of the Ministry of Labour and National Service.

## Manpower Difficulties in Rearmament

MANPOWER difficulties in the rearmament programme are expressed in the latest report from the House of Commons Select Committee on Estimates. The insufficiency of skilled and technical manpower has grown more serious in recent months, and the Ministry of Supply has had considerable difficulty in recruiting even a small number of skilled and unskilled men. The shortage affects mainly the aircraft and machine tool industries. The retention of underemployed workers in the motor industry is believed to be one cause of the shortage of skilled men.

## Juvenile Employment

DURING the twelve months ended January last, 273,169 boys and 263,456 girls under 18 entered employment. Manufacturing industries claimed 46 per cent of the boys and 44 per cent of the girls; distributive trades, 27 per cent of girls but only 14 per cent of boys. 97,000 boys became apprenticed to a skilled craft or trade, 27,000 took up clerical work, and 149,000 entered other work. Nearly 25,000 girls were apprenticed, 79,000 entered clerical employment, and 160,000 other work.

## Manpower Exhibition

THE Manpower Exhibition held at the Safety, Health and Welfare Museum, Horseferry Road, London, S.W.1, is now to remain open until October 19. Admission is free, Monday to Saturday, 10 a.m. to 6 p.m.

## How to Measure Productivity?

A JOINT report of the Institute of Cost and Works Accountants and the Institution of Production Engineers states that, generally, there appears to be a tendency to place too much emphasis on the productivity of labour and too little on that of other productive resources. At present there is no

known measurement that accurately reflects, over a short period of time, changes in the overall productivity of a country, industry or firm. It comments that productivity can only be improved by paying attention to a variety of separate factors.

## Wage Increases for 1,595,000

ABOUT 1,595,000 workers received wage increases, amounting to £492,000 a week, in July, according to the *Ministry of Labour Gazette*. More than a quarter of these increases resulted from orders made under the Wages Councils Acts or the Catering Wages Act.

## Italians for Tin Mines

WITH the approval of the Transport and General Workers' Union, 100 Italian miners are to be brought to Cornwall to help increase tin production. Their hostel will have an Italian warden and cook.

## Working Without Pay

MEMBERS of the Electrical Trades Union have agreed to work without pay in order to finish an estate at Bethnal Green so that families can move in. Completion has been delayed owing to a dispute between the union and the electricity board which started last February.

## Young Engineers Visit U.S.A.

NATIONAL ASSOCIATION OF MANUFACTURERS are sponsoring the visit to U.S.A. of young engineers and industrial technicians from twenty-nine countries, including Britain. The sixty-three students this year will visit factories at Michigan, Ohio and Pennsylvania.

# *Highlights of the 1951 T.U.C.*

LACKING any policy statement from its General Council on wage claims, the 1951 Trades Union Congress heard a warning from the Chancellor of the Exchequer, Mr. Gaitskell, that if incomes went up more than production, prices would rise. While not suggesting a wage freeze, there was special need for moderation in the next few months. Wages problems could not be settled by any one section of organised labour, but were a matter for Congress and could not be set aside.

He suggested that there should be some form of partnership in firms and industries through the distribution to workers of bonus shares reflecting the rise in undistributed profits.

Later, a composite resolution, urging the Government to adopt five measures to check the rising cost of living, was carried by a large majority. Measures suggested included more effective control of profits with limitations of bonus issues, investigation of costs and methods of distribution, and wider control of prices of home produced goods.

### *Equal Pay Protest*

Congress passed unanimously a resolution condemning the Government's attitude to equal pay for women. The Civil Service Clerical Association announced that they were starting a national campaign in support of the immediate application of a graduated system of equal pay for women in the Service.

Speaking on the education report, a member of the General Council announced that the T.U.C. was to introduce training courses on industrial relations and negotiations.

Opposition to the new Industrial Disputes Order 1376 was raised by the Secretary of the National Union of Railwaymen, who moved the reference back of the paragraph in the General Council's report, but this move was defeated.

## Firms Respond to C.D. Call

COUNTY Civil Defence Officer for Warwickshire has stated that no major industrial concern in Warwickshire has failed to respond to the Government's call for the formation of works Civil Defence units, although at present there is nothing to compel firms to take part. Most firms prefer to send their own potential instructors for training, and to date thirty industrial members have qualified as instructors.

## "Help Yourself"

A BOOK addressed to industrial workers has been published by H.M. Stationery Office at 5s. for forty copies. Written and illustrated in the lighter vein, it describes six ways in which work can be done quicker, simpler and easier. Methods suggested are: job study, "finding a gadget," flow processes, reduction of waste, joint consultation, and new production techniques. It aims to stimulate popular interest in methods of increasing output.

## "Thank You" Dinner for Workmen

A SAUSAGE and mash dinner and a glass of ale will be given to 1,300 workmen in Stoke Town Hall next month by the Public Works Department and thirty-seven main contracting firms engaged in Stoke-on-Trent's housing programme. This is a way of saying "thank you" to the men who have completed 900 of the 1,200 houses. Tenants have added their thanks by providing eighty volunteer waitresses. Each employer will eat with his own workmen.

## Industry in a Leprosy Settlement

TO many people it may appear that sufferers from leprosy would not be capable of any form of industrial work. But the disease does not disable the majority, and industrial work is regarded as an important part of their treatment.

Over twenty years ago a centre for

**Bournville Works Youth's Committee has just completed 30 years of junior joint consultation. Here the 1951 committee is in session. The new adult chairman, Mr. Brandon Cadbury, is being introduced by his predecessor. The secretary is a blinded ex-R.A.F. officer, who is seen using a Braille shorthand typewriter.**

the treatment of leprosy was opened at Itu, Southern Nigeria. Today nearly 4,000 patients are housed and treated there. Adult patients help farm over 2,500 acres, and work in the industrial section. The main industry is palm oil, but there are also a modern rice mill, a saw mill, a cocoa grinding machine, and a plant for soap production. Carpenters are helping to build the new 200-bed hospital and engineers maintain water and electricity supplies, lorries and tractors.

Industry plays its part in the treatment of leprosy, and it is to industry that the British Empire Leprosy Relief Association now turns for financial help to maintain its work.

## Points from Productivity Reports

**Farming**—British farmers are better than American. The British farmer is a better husbandman and gets a higher yield per acre than his American counterpart who is more concerned with the relation of output to costs.

**Hop Industry** — Most important recommendations to the English hop industry concerned the fullest consideration of the problems of picking by machine, growing hops for this express purpose and maintaining proper standards of quality of the picked sample.

**Hot Dip Galvanizing** — Although most American shops are no larger than many in Britain, the amount of work passing through is much greater. Technical processes are often simpler and less efficient than British, but emphasis is on means to secure maximum output. Labour is more flexible and even picklers and galvanizers sometimes change places on various shifts. Quality of supervision is important and supervisors take part in technical conferences.

**Pharmaceuticals**—Owing to diversity of processes carried out it was not possible to compare productivity in terms of output per man-hour, but the team did not consider that Americans work any harder, if as hard, as the British. By job study and mechanical handling physical fatigue is reduced to a minimum. British industry should adopt these methods and aim at specialisation and a smaller range of products and packages.

**Welding**—Mechanisation and more flexible use of labour are principal recommendations of this report. Productivity in welding in America is higher than in Britain, but there is little to be learned on matters of technique. The report recommends managements to give more thought to economical planning and invites unions to be more ready to accept labour-saving devices.

**"Better handling offers a greater opportunity to cut production costs and to increase productivity than any other single factor," states the Materials Handling Team Report. Our article on page 153 gives further information on this important subject. The above poster is published by the Anglo-American Council on Productivity, and is reproduced by permission of the Controller of H.M. Stationery Office.**

## Personal

Miss N. B. Keene, information officer, Institute of Personnel Management for the past four years, has received an Economic Co-operation Administration Award for nine months' study of management in the United States, and left last month for the University of Syracuse, New York State.

Mr. J. C. W. Stead, production director, Batchelors Peas Ltd., Sheffield, and vice-chairman, Institute of Works Managers (Sheffield branch), was selected to attend a three months' advanced course of business management at Harvard University last month. He was the only Englishman among 100 senior American business executives.

Mr. A. Swaddle, who as staff manager of the London Co-operative Society has been responsible for the welfare of 20,000 workers, is retiring after 23 years' service.

## CAN YOU HELP US?

A READER of PERSONNEL MANAGEMENT, WELFARE & INDUSTRIAL EQUIPMENT wishes to know if any firm includes Christian direction in its apprenticeship training scheme. Can any reader supply information on this point?

## LETTER TO THE EDITOR

### *What is "Better Lighting?"*

SIR,

May I be permitted to offer some criticisms of the article "How better lighting can boost output," by Mr. A. Wilcock, in your August issue? Your contributor speaks of "better lighting" as though it was synonymous with "more light" and compares artificial lighting with daylight intensities, but omits to point out that one can read comfortably with 2, 3 or 4 foot-candles of daylight; and also with millions of foot-candles of it (though most wise people avoid doing so).

We know that daylight can give very high intensities, but we do not need them for comfortable vision and we can see quite well with surprisingly low intensities of it, as for instance in the early morning before sunrise and for some time after sunset. However, while daylight is free, artificial light is expensive to produce and owing to its different nature, any excess beyond what is necessary for comfortable vision is harmful to the eyes.

*In my opinion "better lighting" should mean better distributed light, i.e. light which is glareless, shadowless, well diffused and evenly distributed.*

Incidentally, why call a foot-candle a lumen per sq. ft.?" It is so easy for a layman to understand the term "foot-candle," which simply means the light given by a candle at a distance of a foot. Our grandparents used three or four candles in a room which would make the average intensity of light in the room only a fraction of 1 foot-candle. When we speak of an average intensity of 15 foot-candles or "lumens per sq. ft." we mean the equivalent of having fifteen candles a foot away at every point in the room so that to light with candles a room, say 20 ft. by 20 ft. by 10 ft. high with an intensity of 20 foot-candles, thousands would be needed.

As regards the effect of artificial lighting on the efficiency and health of the worker, too high an intensity will make the eye lose its sensitivity so that it will need more and more light, and thus we get a vicious circle. It may also be pointed out that a number of recent researches, particularly on the Continent, have shown that glare and excessive intensities of artificial light are a prolific contributory cause of cataract.

All the advantages of good lighting mentioned by your contributor will be much better secured by well diffused light of the kind mentioned above and of adequate but not unnecessarily high intensity.

Yours faithfully,
G. V. DOWNER.

G.V.D. Illuminators,
29b Torrington Square,
London, W.C.1.

# How to Cut Costs in Buying For the Canteen

By PETER MARTIN

**The keen and knowledgeable buyer can play a major part in preventing waste in the canteen. Here are some valuable hints which, though originally issued to help hospital administrative staffs, are equally applicable to industrial catering.**

A corner of the well-planned canteen at the Stamford Street, London, factory of J. Sainsbury's, the grocers.

VALUABLE hints on the elimination of waste in large-scale catering are given in a circular issued by the King Edward's Hospital Fund for London. Here are some of the suggestions made in the circular:

*Vegetables and Fruit.*—The edible-yield of perishable foodstuffs determines the ultimate cost. There is little point in buying articles at a low price if the yield is so poor that it compares unfavourably with a dearer article providing a greater edible proportion. Information about times when new season goods can be bought economically is of vital importance to the buyer and should be recorded.

*Meat.*—Here the tendency to "leave it to the supplier" must be fought and conquered. The supplier will give much better service if he is convinced that his customer knows his business.

Where facilities permit, meat should be bought in carcase form, which provides a more varied selection of cuts and better weight for money than if the meat is bought in joints. To order meat "for roasting or stewing" is a bad policy, even when it is not practicable to buy in carcase.

*Fish.*—Fish should be bought fresh daily, and, as a precaution, should always be examined. Remember: (1) Eyes should be clear and full (not sunken); (2) gills should be bright red; (3) flesh should be firm and resilient; (4) scales should adhere to the skin; (5) skin should be bright, with little slime; (6) the smell should be fresh and salty.

Insist on absolute freshness when buying mackerel, for it deteriorates rapidly and can cause illness. This fish should never be bought when limp.

*Milk.*—Care should be taken to buy milk in containers best suited to their purpose. Bottled milk is the most hygienic; it also provides the buyer with a more accurate method of ordering and supply, as well as being easily stored in refrigerators. Bulk milk should be bought when large quantities are used at a time.

*Bread.*—Because it is a cheap food, the contribution which bread can make to waste is often overlooked. When exposed to the air it soon goes stale, with the result that a surprisingly large proportion of the bread bought is left uneaten.

Sliced and wrapped bread has the advantage of keeping comparatively clean and fresh until it is needed and allowing the buyer to assess more accurately the quantity required.

*Groceries.*—Buyers are advised to sample a product before placing an order. Quality should come before price, but the dearest article is not necessarily the best for the buyer's particular purpose, and in any case price in relation to quality and the average consumer's taste are vital considerations.

Other sources of waste dealt with in the pamphlet include checking of deliveries; storage; careless preparation and cooking of food; recipes; fuel and equipment; time and labour; and swill.

The same source (the King Edward's Hospital Fund for London's hospital advisory service, 24-26 London Bridge Street, London, S.E.1), has also issued a circular on layout and design. This, while necessarily containing many points which are peculiar to hospital kitchens alone, also offers much useful advice which could profitably be followed by those people responsible for industrial canteens.

## Factory Poultry Farm

WHEN James MacFarlane and Co. (Pollokshaws) Ltd., near Kilmarnock, moved to a new factory site in the middle of good agricultural land, they decided to use their two acres to the best advantage. They now grow their own vegetables and run a modern poultry farm, the produce from which is used in the canteen.

Waste from the canteen is sold to the poultry farm, which in turn sells its eggs and chickens to the factory.

(Condensed from *The Factory Manager*, August, 1951.)

# *New Industrial Equipment*

## EXECUTIVES' SURVEY OF AIDS TO INCREASED PRODUCTION

**Readers who wish to have more particulars of any of the products referred to in this section are asked to write to the Editor, quoting the reference number which appears at the end of the paragraph.**
**We are always glad to receive details of new products suitable for description here, e.g., equipment that helps in any way to raise output.**

### HANDLING

#### Three-in-One Truck

THE Donald truck combines the functions of a barrel lifter, a truck and a stand. It is operated by one man, and all types and sizes of wood barrels or steel drums up to 60 gal. capacity (or 8 cwt.) can be raised without the need for touching them by hand. It provides smooth and safe transport for such barrels and drums, and is manœuvrable through narrow doorways and passages. Occupying only 2 ft. by 4 ft. of floor space, the truck supports the barrel at a convenient height for filling a 3-gal. measure or bucket. The rigid handle acts as a guard to prevent drip-cans being upset; alternatively, the barrel can be up-ended after use to stop drips from the tap.

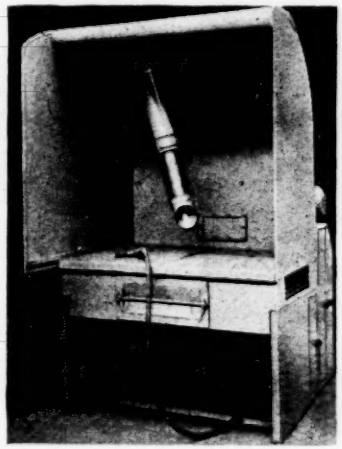
Leverage and the rolling motion on the quadrant ensure easy lifting. Special models have been supplied for moving electric motors, tea chests, carpets and reels of paper. **(PM/410.)**

### SAFETY

#### Dust Collector

MAGNESIUM alloy dusts are explosive and very inflammable under certain conditions. Great care has to be taken over their disposal. Each flexible shaft grinding or polishing machine must have its own separate collection unit and comply with the Factories' Act.

The Multiswirl unit dust collector is designed exclusively to solve this type of problem. The dangerous dust is collected and immersed and scrubbed in a water chamber. Should the velocity of air-flow in the extraction ducts fall for any reason below the requisite for efficient collection, or the water level fall, an automatic device stops the grinding or polishing machine. The machine cannot be restarted until the air-flow is restored.



A time switch ensures that the unit fan runs for a period of five minutes so that any latent gases which may have accumulated, perhaps overnight, are cleared before the grinding or polishing machine is started up. Explosion releases are also fitted. Included in the Multiswirl range are bench and booth type models (the latter is illustrated) and a unit for double-ended polishing spindles. **(PM/411.)**

### MAINTENANCE

#### Rubber Paint

DEVELOPED to protect iron and steel work against unusually corrosive conditions, Tretol chlorinated rubber paint should be particularly effective in industries where acids, alkalis and other chemicals are used. It is claimed for this paint that it has all the protective qualities of rubber, and that the film will not become brittle and crack under the action of corrosive agents. Further, it is said to be unaffected by humidity and to be suitable for use in positions where it is likely to come into contact with sea water, lubricating oils, cutting oils, paraffin, etc. It is available in fourteen colours. **(PM/412.)**

### ADMINISTRATION

#### Typewriter Desk

A CONVENIENT housing for a typewriter, whether in use or stored out of sight, is provided in this new desk. The machine stands on a platform fixed to a ball-bearing elevating mechanism, which automatically locks itself in position at the top of its travel. On release of the lock, platform and typewriter may be slid into the pedestal, the front of which has the appearance of drawer fronts matching those on the other pedestal. A slight pull is all that is necessary to

bring the typewriter into position. The desk measures 5 ft. by 2 ft. 10 in. **(PM/413.)**

## Electric Time Recorder

WITH the latest type of Super-electric time recorder, the act of recording is a one-hand operation. The user merely inserts his time card and the record is made—clearly and legibly in the right position, with an indication of day, hour and minute corresponding with the time-indicating numerals on the front of the machine. There are no handles or levers to press.

The mechanism is controlled by a 1/50th h.p. motor. Movement from day to day and column to column on the card can be as close as one minute. The machine, and not the operator, selects the accurate position for the record. Lost time and overtime are shown in red.

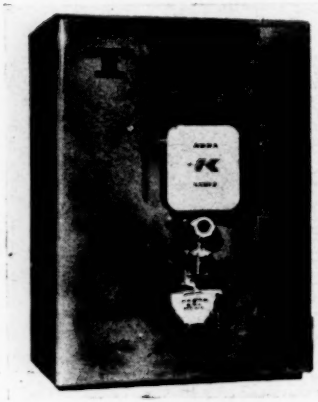
Bells and hooters can be automatically controlled, in accordance with pre-arranged time schedules, by the same mechanism. The equipment may be rented if desired. **(PM/414.)**

## FIRST AID

## First-aid Pack

A NEW dispenser pack has been produced for Adaptoplast first-aid dressing, in 5 yd. rolls. The dressing is fed through a slot in the carton; the nurse or first-aid attendant cuts off the required size, folds back the material and closes the lid. The dressing is thus kept clean and immediately available for use. It is obtainable in the following widths: 1½ in., 2 in., 2½ in. and 3 in. **(PM/415.)**

## CANTEEN



## Tea Dispenser

HERE is a penny-in-the-slot machine which serves a measure of tea, sugar and milk—ready to drink—each time the coin is inserted. Tea is made in the usual way in an insulated urn, which is then placed in the cabinet. The customer gets his drink by inserting the penny and pressing his cup against the operating arm. There are no electrically operated parts and no maintenance is necessary.

The standard unit (illustrated) measures 24 in. wide by 18 in. deep by 39 in. high, and holds 160 cups of tea per charging. Double and multiple units are available. The measure holds 6 oz. The coin mechanism can be adjusted to suit amounts other than 1d.

Among the advantages claimed for this dispenser are: Saving in labour costs; speedier service; accurate accounting, and an accurate measure for the customer; and possible abolition of the tea break by allowing operatives to visit the dispenser when they wish, draw off a cup of tea and return to work. **(PM/416.)**

## WOODWORKING

### Safe Sawing

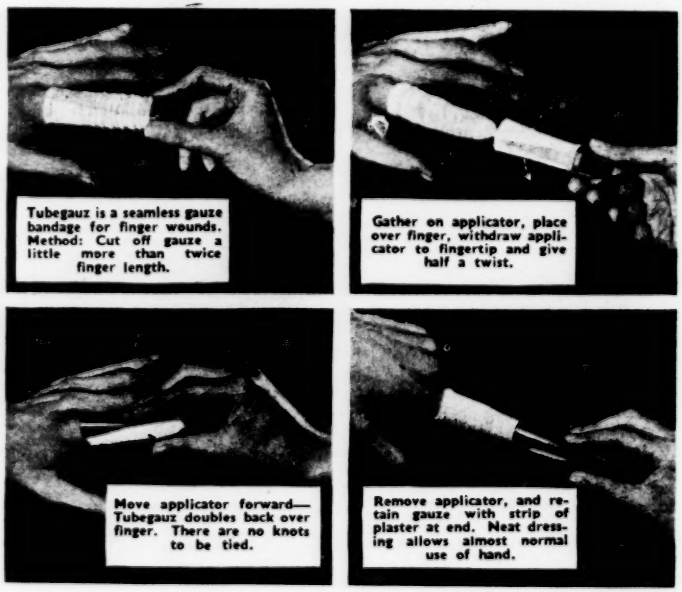
COMPLETE protection for the operator is claimed by the manufacturers of a new portable electric saw, the R.S.10. A steel, spring-loaded guard covers the blade and is pushed back as the machine enters the work.

The mechanism of the guard is covered by a dust- and swarf-proof housing.

A magnesium alloy frame makes for

(*Continued on page* 173.)

## *New Finger Dressing*


Tubegauz is a seamless gauze bandage for finger wounds. Method: Cut off gauze a little more than twice finger length.
Gather on applicator, place over finger, withdraw applicator to fingertip and give half a twist.
Move applicator forward—Tubegauz doubles back over finger. There are no knots to be tied.
Remove applicator, and retain gauze with strip of plaster at end. Neat dressing allows almost normal use of hand.

# is yours?

Yes, if you use Chinabrite. You can proudly claim that your high-class meals are eaten off scientifically clean crockery with equally safe cutlery. Forks present the greatest menace and even they are made chemically clean with Chinabrite—the highly efficient and economical detergent for hand and machine washing-up. Write for further details.

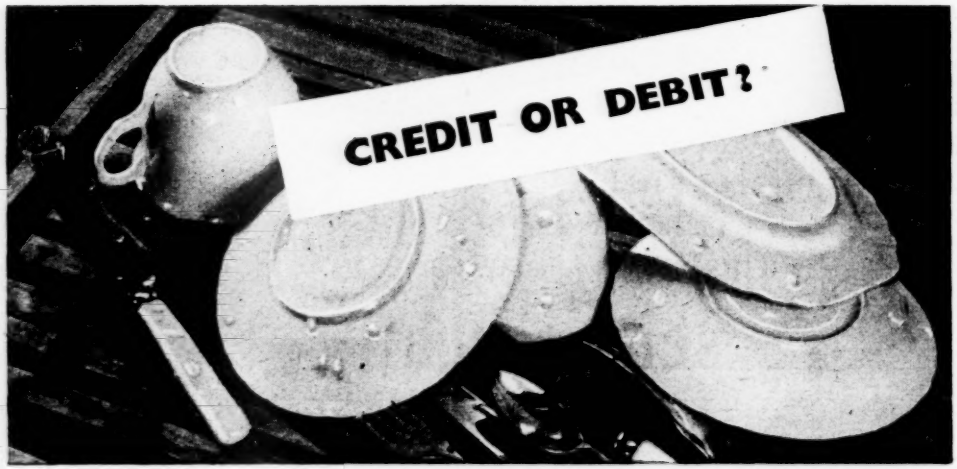
**DECIQUAM 223.** A tasteless, taintless, instantaneous steriliser for Ice Cream Servers.

**SANIGLAS.** An inexpensive but powerful product for sterilising glasses in public houses.

**STEROKLENE.** A strong Detergent specially graded for cleaning beer engines and pipe lines.

**CHINABRITE**

**THE BRITISH HYDROLOGICAL CORPORATION**
COLLOIDAL WORKS, HIGH PATH, MERTON, S.W.19. Telephone : LIBerty 1021 (4 lines)
***Associated Companies:*** *Colloidal Detergents of Australia Ltd., Sydney, Australia; Chemical Services (Pty) Ltd., Johannesburg. And at Copenhagen, Amsterdam, Brussels, Paris, Lille, Lyons.*

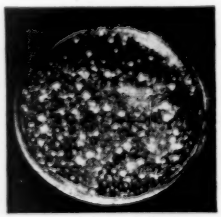


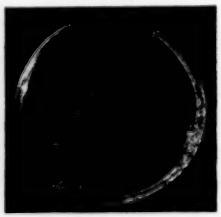

Is your crockery, glass, cutlery a credit to British standards of cleanliness? Cases of 'food poisoning' are on the increase and there is a risk of infection spreading through unsatisfactory washing-up.

## Germs spread from the kitchen sink

A cup, a glass, a fork may be infected in use. (Even healthy people can be 'carriers' of dangerous germs.) The infection is transferred to the washing-up water. Other utensils washed therein are infected in turn. Clean and bright they may *look*, but still be a menace to health. Here's a proof!

*Bacteria in untreated washing-up water*





*Washing-up water treated by the Deosan Method*

## THE DEOSAN CLEAN FOOD SERVICE ROUTINE

provides a simple way to sanitize the whole process of washing-up. It is simplicity itself, gives your staff no 'extra jobs', costs very little. But it will make your utensils and equipment *safe*. Keep ahead of growing official concern in this matter. Send a postcard now to the address below for full details.

**Deosan Limited, 10-12 Brewery Road, London, N.7.** ASSOCIATE COMPANY OF MILTON ANTISEPTIC LIMITED

# INDUSTRIAL EQUIPMENT

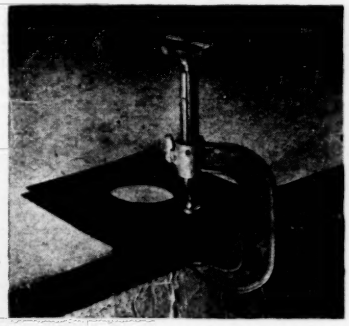
*Continued from page 170*

lightness and portability and the powerful motor remains cool under a continuous heavy load.

Blades for a wide variety of work are available, including cutters for ripping and cross-cut work and special blades for use with composition sheets, plywood or corrugated metal.

The R.S.10 is housed in a strong steel carrying case and there is room for storing the spare new blades, etc.

**(PM/417.)**



## Ratchet Clamp

THE ratchet "C" clamp combines the advantages of screw operation with instantaneous adjustment. Spring-controlled ratchet and pawl enable the clamping pad to be pushed straight into contact with work of any thickness. A slight turn of the knurled head completes the operation. The clamp is then firmly in position. To open it, the barrel is released by light pressure on the pawl, and the spindle withdrawn instantly to any required jaw opening.

Dimensions of the clamp are: Closed, 7¾ in.; open, 10½ in.; width 3¾ in. Net weight is 1½ lb., and capacity up to 2¾ in. The frame is of malleable iron and all other parts are of steel machined all over. **(PM/418.)**

## ELECTRICAL

### Generating Set

GLOOMY forecasts about the coming winter's fuel and power supplies are making many managements go seriously into the question of installing standby generating plant. Here is the Sentinel alternator power unit, 4SRH2/A. Powered by a four cylinder horizontal diesel engine, the alternator is capable of delivering continuously an output of 40 kw. and 44 kw. for a period of one hour. Arrangements can be made for parallel operation with other equal or similar units. Controls and instruments are grouped on one panel distinct from the engine panel.

The unit can be supplied completely enclosed, as illustrated, or without the canopy. The power unit is electrically started and cooled by water. Fuel consumption varies between .415 to .435 lb. per b.h.p. per hr. (b.h.p. = 65).

**(PM/419.)**

# 12 ALUMINIUM 'EVERLASTING' XMAS & CARNIVAL DECORATIONS

**Christmas Cracker.** Made out of diamond-shaped ¼ in. mesh—it is hollow, so lending itself to all sorts of decorative attachments. 3 ft. 6 in. × 8 in. **55/-.**

**Handsome Candelabra.** Very distinctive. **£3/3/0.**
**Imitation Candles** for same. **7/-.**
**Ornate Bracket. 27/6.** For use cage, etc.
**Lantern.** 18 in. high × 13 in. wide, bracket included 20 in. × 12 in. **£3/3/0.**
**Cage.** 15½ in. × 15 in., **37/6;** 15½ in. × 17 in., **40/-;** 22 in. × 20 in., **42/6.**

Because of its lightness in weight and particularly because it responds to permanent colour treatment, aluminium is an excellent medium for beautiful decoration and display.
We specialise in producing at our works many ornate, handsome and effective units suitable for decoration in Hotels, Dance Halls and Catering Establishments.
Aluminium can be dyed in the following colours in shades ranging from a deep rich colour to a delicate pastel: SILVER, GOLD, RED, GREEN, BLUE, BLACK.
**Naughty Noel.** Metal sculpture Christmas head. **21/-.** Stereoscopic and fully coloured.
**Links.** For use alone or with any of the above items. 5 in., **1/4** each. 7 in., **1/8** each.
**Bells.** 10 in. diameter. **17/6.**
**Diamond Mesh.** A most useful "new material."
¼ in. mesh, 4 ft. × 4 ft. **3/-** per sq. ft.
½ " " 6 ft. × 3 ft. **2/6** " "
¼ " " 6 ft. × 3 ft. **2/-** " "
3 " " 6 ft. × 3 ft. **1/3** " "
½ in. wide silver aluminium streamer tape in 400 ft. reels. **1/6** each.
Coloured foil curtain and fringes in red, green, blue, gold with silver. 8 ft. drop × 33 in. wide and 2 ft. drop × 6 ft. wide respectively.
**Spheres.** 3 in. diameter, **3/6** each. Also in coloured glass 2 in. and 3 in. diameter, **12/6** and **18/6** per doz.

## ADDITIONAL ITEMS

**Shredded Cellophane. 2/6** lb.
**Spun Glass. 2/-** lb. in 28 lb. bags.
**Ice Crystals. 1/6** per lb.
**Icicles.** All shapes and sizes. **£9/10/-** a case of 250.
**Opal Tinted Spun Glass.** 8 ft. long. Makes a shimmering curtain. 18 lb. hank approx. **3/-** per lb.
**Block Snow.** A wonderful medium. **40/-** a carton (two blocks to a carton, each block 2 ft. square, 4 in. deep).
**Snow.** Same as block material, but granulated. **25/-** lb.

**MultiTechnics (LEEDS) LTD**
**CARLTON CHAMBERS**
**Dept. 12 B, 84 ALBION STREET, LEEDS 1**

For QUALITY and ECONOMY use

"Host" Holbrook Holbrooks

"HOST" OF GOOD THINGS—

Worcestershire Sauce
"Host" Sauce
Pure Malt Vinegar
Flavourings
Browning
Mixed Pickles
"Pickelo"
Chutneys, etc.

HOLBROOKS LTD. B'HAM 7



***St. Dunstan's chartered physiotherapists***

have stood the test of time and have gained a high reputation in all branches of physical treatment. When you are in need of physical treatment the services of St. Dunstan's Chartered Physiotherapists can be obtained by writing or telephoning to St. Dunstan's, 191, Marylebone Road, London, N.W.1 (*Paddington 5021*). You are also assured of well-equipped and up-to-date treatment rooms.


# *Looking Ahead*

## ADVANCE NEWS OF NEW FACTORIES AND WELFARE EXTENSIONS

**Airdrie.**—Godfrey Phillips Ltd. propose factory at Carlisle Road. Architects: John Scott and Son, 10 Bank Chambers, Graham Cross, Airdrie.

**Ashton-in-Makerfield.**—U.D.C. approved plans for pithead baths at Park Collieries and Seneley Green Drifts, for National Coal Board.

**Basildon (Essex).**—Nufloor Ltd., 34 Lauriston Road, London, E.9, propose £40,000 factory at Basildon New Town. Building contract placed.

**Bermondsey.**—Factory at Grange Road, S.E.1, will be rebuilt for S. Batchelor and Son, at cost of £30,000. Architects: G. Elkington and Son, 165 Gray's Inn Road, W.C.1.

**Blackpool.**—Plans submitted: Canteen at factory, Mowbray Drive, for F. Peeney and Sons Ltd.

**Bolton.**—Pithead baths and canteen proposed at Deane (Victoria) Colliery by National Coal Board approved by T.C.

**Brentford.**—Architects for factory and office proposed by H. Band and Co. Ltd., are Dodge and Reid, 72 High Street, Brentford.

**Brighton.**—Factory proposed by Skelton Sleat and Co. Ltd., 26 Raymouth Road, London, S.E.16.

**Dagenham.**—Factory planned for Hilmore Ltd., 65 Calshot Street, London, N.1. Factory and offices for Megam Units Ltd. Architects: F. Durrant, Westmore and Reaves, 121 Cheapside, London, E.C.2. Factory planned for G. M. Miller and Co. Ltd., on Hainault Industrial Estate. Architect: H. E. A. Giddings, 22 John Street, London, W.C.1.

**Derbyshire.**—Ketton Portland Cement Co. Ltd. received permit for factory at Dove Holes.

**Douglas.**—New works and offices proposed at Ringside. Architect: James S. Shannon, 45 High Street, Bigar, Lanarkshire.

**Dunfermline.**—Dean of Guild Court approved plans for factory at Pilmuir Street, for Dunlop Rubber Co. Ltd. Probable cost £187,000.

**Essex.**—Preliminary clearing and site preparation work in hand at Coryton, for £14,000,000 oil refinery for Vacuum Oil Co., of Caxton House, Westminster and Coryton, Stanford-le-Hope, Essex.

**Gosport.**—Factory proposed by C. Frodsham and Co. Ltd., 173 Brompton Road, London, S.W.3.

**Hereford.**—Ministry of Supply is to have a factory built at Holmer.

**Hindley.**—£36,000 licence issued for demolition of multi-storied premises and erection of single-storey buildings at Kirkpatrick Mill.

**Hornchurch.**—Colton Electrical Equipment Co. Ltd., propose extensions to factory at Moor Lane, which has B.C. approval. Factory is planned at South Street, for Paragon Engineering Co. Architects: Douglas White and Furniss, 147 Cheapside, E.C.2. Factory at South Street approved for Cranham Gauge and Tool Co., Cranham Road, Romford, Essex.

**Hull.**—Planning Committee approved outline application submitted by Fox and Sellers Ltd., to erect body building works at junction of Marvel Street and Rrikes Street. Committee approved outline application of Amos and Smith Ltd., for rebuilding workshops and erecting others. Robinson and Speight Ltd., Osborne Street, propose rebuilding works.

**Leyland.**—H. S. Fairhurst and Son, 55 Brown Street, Manchester, are architects for factory proposed by Leyland Motors Ltd. Cost about £800,000.

**Liverpool.**—Corporation Finance Committee recommends lease of site at corner of Brookfield Drive and Hanson Road, Fazakerley, to Lodge Plugs Ltd., Rugby, for erection of factory. Architects for factory at Long Lane, Fazakerley, for W. R. Jacobs and Co. Ltd., are Ormrod and Banister, 49 Rodney Street, Liverpool. Further extensions on Kirkby Industrial Estate proposed by T.C.

**London, E.**—Factory, offices, etc., planned at Woolwich Road, E.16, for Rye-Arc Ltd., ships' engineers, etc., 24 Leadenhall Street, E.C.3. W. R. Skinner Ltd. propose factory and offices at Caxton Street North, at cost of about £20,000. Architects: M. Evans and Son, 21 Brunswick Square, London, W.C.1.

**London, E.C.**—Reinstatement of factory and offices at Hatton Garden, E.C.1, for Priestley and Moore Ltd., will cost about £40,000. Architect: P. M. Davson, 72 Victoria Street, London, S.W.1.

**London, W.C.**—Canteen in Holford Square, W.C.1, proposed by Ormond Engineering Co. Ltd., to cost about £10,000.

**Manchester.**—Plans submitted: Laboratory, offices, works, canteen, etc., Ashton New Road and Clipstone Street, Clayton. Reinstatement of Sun Restaurant, Market Place. Architect for factory and garages proposed by W. Matthews and Son Ltd., is A. A. G. Toone, 37 Princes Street, Manchester 1.

**Middlesbrough.**—North-Eastern Trading Estates Ltd. to erect a canteen on East Middlesbrough Trading Estate.

**Mitcham.**—Halfhide and Partners, 106 Regent Street, London, W.1, are architects for factory proposed by G. A. Cramp and Sons Ltd.

**Newcastle (Staffs).**—T.C. to recommend to British Glues and Chemicals Ltd., that they use site at Bells Hollow for new works. Plans submitted: Canteen, Audley Road, Chesterton, G. H. Downing and Co. Ltd.

**Newcastle-on-Tyne.**—Newrick and Blackbell, 58 John Street, Sunderland, are architects for factory proposed by S. Quinn and Son Ltd. M. Gatoff, Trafalgar Street, Newcastle, is architect for mineral water factory in Condercum Road, for St. James's Products Ltd.

**N. Ireland—Londonderry.**—Factory is proposed by Dunlop Cotton Mills Ltd., to plans by T. F. O. Rippingham, Works Division, Ministry of Finance, Belfast.

**North Shields.**—Calverley-Gee Ltd., Prudhoe Street, propose to erect factory.

**Northumberland.**—Canteen building at Weetsland Colliery planned by National Coal Board.

**Paisley.**—Dean of Guild Court approved plans for spinning mill at Ferguslie Mills, for United Thread Mills Ltd., Anchor Mills, Paisley. Expenditure may amount to £500,000.

**Peterlee (Co. Durham).**—Alexandre Ltd., Clothing manufacturers, received sanction to extend factory by another 10,000 sq. ft. Amour Laboratories Ltd., London, planning factory at Peterlee, and Billetop and Gilpin Ltd., Leicester, considering erecting factory of 15,000 to 20,000 sq. ft. capable of expansion to 30,000 sq. ft.

**Plymouth.**—Canteen building planned by Western National Omnibus Co. Ltd. Architect: A. A. Briggs, Tilling Association, 10 Fleet Street, London, E.C.4.

**Portsmouth.**—McMurdo Instrument Co. Ltd., 145 London Road, Kingston-on-Thames, propose to erect factory.

**Rainham, Essex.**—Murex Ltd. propose factory at Ferry Lane, and plans approved. Architects: Mundy and Smith, 1a Little Lane, Temple.

**Reading.**—Factory is proposed by Remploy Ltd., 25 Buckingham Gate, London, S.W.1.

**Runcorn.**—Plans approved: Works canteen, at Salt Works, canteen at Wigg Works East, and offices and a mess room at Rocksavage Works, all for Imperial Chemical Industries Ltd.

**St. Marylebone.**—B.C. will have plans prepared by Guy Nicholls, 66a Wigmore Street, London, W.1, for welfare block at Cleansing Wharves.

**Scarborough.**—Plans submitted for factory, Ewart Street, for Kelly. Plans by E. W. Grey. Small factory at 53 St. Thomas Street, for J. McFarlane and Son.

**Sheffield.**—Corporation proposes to lease sites for erection of industrial buildings: At Carlisle Street East, to Firth Brown Tools Ltd; at Solly Street for Jones and Longbottom Ltd. Factory at Cliffe Road and Princess Street planned by Davenport Bros. and Co. Ltd.

**Smethwick.**—Factory proposed by J. Finnegan and Son Ltd., 277 High Street, Smethwick.

**Tynemouth.**—Plans submitted: Erection of mineral water factory at North Shields, for Calverley and Gee. Architect: William Stockdale, 73 Howard Street, North Shields.

**Treherbert, S. Wales.**—National Miners' Welfare Council providing new pithead baths, etc., at Fernhill Colliery, Treherbert, at £108,000.

**Wakefield.**—Plans for first stage of development (25,500 sq. ft. floor area) of factory in Horbury Road, by W. Freeman and Co., approved by T.C.

# *Summary of Official Publications*

## READERS' GUIDE TO ACTS, STATUTORY ORDERS, NEW RULINGS AND AWARDS CONCERNING INDUSTRY AND PERSONNEL

### STATUTORY INSTRUMENTS

**No. 1375. The Fire Services (Ranks and Conditions of Service) (No. 3) Regulations, 1951.** Dated July 31, 1951, made by Secretary of State under Sub-section (1) (a) and (b), of Section 17, Fire Services Act, 1947(a). *H.M.S.O.* 2*d*. (Provide an increase of £25 a year in the pay of Divisional Officers, Assistant Divisional Officers and Station Officers. Operative as from August 1, 1951.)

**No. 1424. The Police Regulations, 1951.** Dated August 3, 1951, made by Secretary of State under Section 4, Police Act, 1919(a). *H.M.S.O.* 2*d*. (Provide pay increases for all ranks. Operative as from August 3, 1951.)

**No. 1430. The Paper Box Wages Council (Great Britain) Wages Regulation Order, 1951.** Dated August 3, 1951, made by Minister of Labour and National Service under Section 10, Wages Councils Act, 1945(c). *H.M.S.O.* 4*d*. (Revokes Orders B. (41) and B. (46) and fixes new statutory minimum remuneration payable. Operative as from August 24, 1951.)

**No. 1492 (S.79). The Police (Scotland) (Amendment) Regulations, 1951.** Dated August 3, 1951, made by Secretary of State for Scotland under Section 4, Police Act, 1919(a) *H.M.S.O.* 2*d*. (Provide pay increases for all ranks. Operative as from August 3, 1951.)

**No. 1493 (S.80). The Police (Women) (Scotland) (Amendment) Regulations, 1951.** Dated August 3, 1951, made by Secretary of State for Scotland under Section 4, Police Act, 1919(a). *H.M.S.O.* 2*d*. (Provide pay increases for all ranks of women police in Scotland. Operative as from August 3, 1951.)

**No. 1501. The Laundry Wages Council (Great Britain) Wages Regulation Order, 1951.** Dated August 14, 1951, made by Minister of Labour and National Service under Section 10, Wages Councils Act, 1945(b). *H.M.S.O.* 4*d*. (Revokes Order W. (65) and fixes new statutory remuneration payable. Operative as from August 31, 1951.)

**No. 1506 (S.81). The Police (Women) (Scotland) (Amendment) (No. 2) Regulations, 1951.** Dated August 14, 1951, made by Secretary of State for Scotland under Section 4, Police Act, 1919(a). *H.M.S.O.* 2*d*. (Make minor improvements in the computation of overtime of women police in Scotland. Operative as from September 1, 1951.)

**No. 1507 (S.82). The Police (Scotland) (Amendment) (No. 2) Regulations, 1951.** Dated August 14, 1951, made by Secretary of State for Scotland under Section 4, Police Act, 1919(a). *H.M.S.O.* 2*d*. (Make minor improvements in the computation of overtime of the police in Scotland. Operative as from September 1, 1951.)

**No. 1542. The National Insurance (Industrial Injuries) (Prescribed Diseases) Amendment (No. 4) Regulations, 1951.** Dated August 22, 1951, made by Minister of National Insurance under Sections 55, 56, 57 and 86, National Insurance (Industrial Injuries) Act, 1946(a). *H.M.S.O.* 2*d*. (Extend insurance against pneumoconiosis to persons employed in the manufacture of carbon electrodes for use in the electrolytic extraction of aluminium from aluminium oxide. Also provide for payment of benefits in respect of persons working in that employment since July 5, 1948, who are suffering, or have since died, from the disease. Operative as from August 27, 1951.)

**No. 1550. The Milk Distributive Wages Council (England and Wales) Wages Regulation Order, 1951.** Dated August 23, 1951, made by Minister of Labour and National Service under Section 10, Wages Councils Act, 1945(c). *H.M.S.O.* (Revokes Orders M.D. (56) and M.D. (60) and fixes new statutory minimum remuneration payable. Operative as from September 9, 1951.)

**No. 1551. The Retail Furnishing and Allied Trades Wages Council (Great Britain) Wages Regulation (No. 2) Order, 1951.** Dated August 23, 1951, made by Minister of Labour and National Service under Section 10, Wages Councils Act, 1945(c). *H.M.S.O.* 6*d*. (Revokes Orders R.F.A. (6) and R.F.A. (8) and fixes new statutory minimum remuneration payable. Operative as from September 12, 1951.)

**No. 1584. The Firemen's Pension Scheme (No. 3) Order, 1951.** Dated August 27, 1951, made by Secretary of State and Lords Commissioners of H.M.Treasury, under Section 26, Fire Services Act, 1947(a). *H.M.S.O.* 2*d*. (Provides that the reduction of a child's special allowance (granted under Section 26, National Insurance (Industrial Injuries) Act, 1946) by 7s. 6d. a week shall only apply where the allowance is 10s. Operative as from September 3, 1951.)

**No. 1606. The National Insurance (Industrial Injuries) (Benefits) Amendment (No. 3) Regulations, 1951.** Dated August 31, 1951, made by Industrial Injuries Joint Authority under Sub-section 30 (1), and paragraph 1 (2)(b) of the Fourth Schedule, National Insurance (Industrial Injuries) Act, 1946(a) as amended by the National Insurance Act, 1951(a). *H.M.S.O.* 2*d*. (Extend priority of title to a child's allowance under the National Insurance Act, 1951. Also remove restrictions on payment of injury benefit in respect of a dependant who is himself in receipt of injury benefit except where he also receives a supplementary allowance for unemployability. Operative as from September 5, 1951.)

**No. 1608. The Rubber Manufacturing Wages Council (Great Britain) Wages Regulation (Amendment) Order, 1951.** Dated August 31, 1951, made by Minister of Labour and National Service under Section 10, Wages Councils Act, 1945(b). *H.M.S.O.* 3*d*. (Amends Order R.U. (33) and fixes new statutory minimum remuneration payable. Operative as from September 17, 1951.)

### INDUSTRIAL COURT AWARDS

**No. 2336. Fishing Industry.** Reference: To determine whether trip money be paid on remunerative trips only. Award: The Court awarded that a system of trip money for skippers be introduced, the amount and method of payment to be negotiated by the parties concerned. (August 21, 1951.)

**No. 2337. Government Industrial Establishments.** Reference: Claim that stokers employed at Risley Victualling Depot be paid in full for the hours worked each week. Award: The Court found that errors in method of calculating wages, while regrettable, did not justify the union's claim, and awarded that rates of pay and conditions of stokers continue to be those applicable to similar "local rated" Admiralty establishments. (August 22, 1951.)

### NATIONAL ARBITRATION TRIBUNAL

#### AWARDS

**No. 1711. Claim for the Reinstatement of a Worker Formerly Employed at a Hospital at Banstead, Surrey.** Claim: For reinstatement of worker as from December, 1949. Award: Claim not established. (August 1, 1951.)

**No. 1712. Rates of Wages and Conditions of Employment of Certain Workers Employed by a Food Manufacturing Company at their Works at Lincoln.** Claim: For observance by company of rates and conditions laid down by the Joint Industrial Council for the Food Manufacturing Industry. Award: The Tribunal awarded minimum rates for male workers ranging from 38s. a week at 15, to 110s. at 21 and over, and for female workers from 39s. a week at 15, to 78s. at 18 and over. (August 2, 1951.)

**No. 1713. Wage Rate of Certain Ambulance Drivers Employed by the Northumberland County Council.** Claim: That drivers whose rate of pay was reduced in April, 1949, should have the original rate restored. Award: Claim not established. (August 8, 1951.)

**No. 1714. Terms and Conditions Applicable to Agents Employed by a Friendly Society in Aberdeen.** Claim: That Society should reintroduce terms and conditions which applied before July, 1949. Award: The Tribunal found that the terms and conditions offered by the employers in their letter of April, 1951, formed a basis for settlement and awarded that these terms and conditions be made operative as from July, 1949. (August 10, 1951.)

**No. 1715. Rate of Wages of Certain Engineering Workers Employed by a Tin Mining Company in Cornwall.** Claim: That maintenance workers be paid same rate as maintenance men employed in the engineering industry in the district. Award: In favour of workmen. (August 10, 1951.)

**No. 1716. Rates of Wages and Conditions of Employment of Ambulance Drivers and Attendants Employed by the Glamorgan County Council.** Claim: That Council should observe specified rates and conditions of employment as from June, 1949, and pay an additional 6s. a week for the period November, 1948, to June, 1949. Award: Claim not established. (August 13, 1951.)

**No. 1717. Rates of Wages and Conditions of Employment of Ambulance Drivers and Attendants Employed by the Glamorgan County Council.** (As award No. 1716.)

**No. 1718. Rates of Wages and Conditions of Employment of Ambulance Drivers and Attendants Employed by the Glamorgan County Council.** (As Award No. 1716.)

**No. 1719. Rates of Wages and Conditions of Employment of Ambulance Drivers and Attendants Employed by the Monmouthshire County Council.** Claim: That Council should observe specified rates and conditions of employment as from June, 1949, and pay an additional 6s. a week for the period November, 1948, to June, 1949. Award: Claim not established. (August 13, 1951.)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## INDUSTRIAL DISPUTES TRIBUNAL

### AWARDS

**No. 1. Rates of Wages and Conditions of Employment of Taxi-cab Drivers Employed by a Firm in Cardiff.** Claim: For improved rates of wages and conditions of employment. Award: The Tribunal awarded as follows: (1) basic wage to be increased to 75s. a week with additional 2s. 6d. after two years' service, and 5s. after five years' service; (2) normal working week to be 54 hours; (3) all overtime to be paid at time-and-a-quarter; (4) work on statutory holidays to be paid at double-time. (August 21, 1951.)

**No. 2. Wage Rates of Certain Workers Employed by an Electrical Engineering Company at Rugby.** Claim: That Schedule rates for testers be increased 11s. a week in accordance with engineering industry agreement, November 28, 1950. Award: The Tribunal found that the employers had correctly applied the terms of the agreement concerned. (August 24, 1951.)


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**No. 3. Saturday Overtime Conditions of Workers Employed in the Wood Box, Packing Case and Wooden Container Industry in the London District.** Claim: That the "Better Conditions" clause of the Working Agreement of January 17, 1944, should apply regarding Saturday overtime rates in the London district. Award: Claim not established. (August 24, 1951.)

# THE MONTH'S DATES

**Birmingham College of Technology**

October

20 "The Work of the Anglo-American Council on Productivity." Sir Thomas Hutton, Department of Industrial Administration, 10 a.m.

**Industrial Welfare Society (Incorporated)**

26-29 "The Foreman Wants to Know." The Hydro Hotel, Llandudno.

**Institute of Industrial Administration**

4 "Training in Industry." A. T. Raby, Midland Hotel, Derby. 7.15 p.m.

10 "An Unofficial Strike." A. S. J. Cox, Wheatsheaf Hotel, Kingston. 7 p.m.

10 "The Administrative Staff College." Demonstration Room, West Midlands Gas Board, Darlington.

11 "American Management." W. B. D. Brown, Glacier Metal Co., Ealing Road, Alperton, Wembley. 7 p.m.

11 "Management and Trade Union Relations in American Industry." F. C. Jex, Assembly House, Norwich.

11 "Fallacies of Management." Lewis C. Ord, Royal Beach Hotel, Southsea. 6.30 p.m.

11 "Management by Remote Control." H. Howe, Cleveland Scientific and Technical Institute, Middlesbrough. 7.30 p.m.

11 "The Film in Industry." Demonstration Room, West Midlands Gas Board, Darlington. 7 p.m.

16 "The Principal Problems in Operating a Financial Incentive Scheme." H. A. Randall and J. I. Anderson, Management House, 8 Hill Street, London, W.1. 7 p.m.

17 "Methods of Communication in Industry between Management and Men." R. A. C. Radcliffe, Gas Showrooms, Buttermarket Street, Warrington. 7.30 p.m.

18 "Personnel Management." A. P. Forrester-Paton, Darlington Technical College. 7.30 p.m.

22 "Management of Nationalised Industries." Roland Bird, South Wales Institute of Engineers, Park Place, Cardiff. 7.15 p.m.

**The Institute of Industrial Technicians**

5 "An Indirect Incentive Scheme." S. I. Rastal, F.I.I.Tech., Grand Hotel, Charing Cross, Glasgow. 7.30 p.m.

18 "Industrial Productivity in Britain and America." F. Garner, M.I.Mech.E., Birmingham Chamber of Commerce, Birmingham. 7.15 p.m.

26 "The Assessment of Operator Working Performance." Winston Rodgers, B.Sc., M.I.I.A., Cowdray Hall, Royal College of Nursing, Cavendish Square, London, W.1. 7 p.m.

**Institute of Personnel Management**

5 "Personnel Management." Lounge Hall, Royal Baths, Harrogate.

5-7 National Conference. The Royal Hall, Harrogate.

**The Institution of Production Engineers**

2 "Industrial Incentives." R. N. Marland, B.Sc. The Great Western Hotel, Reading. 7.15 p.m.

3 "The Problems of Modern Management." Lewis C. Ord. The South East Essex Technical College, Barking. 7.30 p.m.

8 "Some Aspects of Materials Handling in Industry in the U.S.A." E. G. Taylor. The Hotel Metropole, Leeds. 7 p.m.

12 "Valid Incentives." E. C. Gordon England, Suckling House, St. Andrews Plain, Norwich. 7.30 p.m.

16 "Works Measurement and Results of Research Survey." D. J. Desmond. The Grand Hotel (Marlborough Room), Bristol 1. 7.15 p.m.

17 "Some Aspects of a Factory Inspector's Work." Miss G. M. Mitchell (H.M. Inspector of Factories). North British Station Hotel, Edinburgh. 7.30 p.m.

**Institution of Works Managers**

2 Annual Dinner and Discussion. "Restrictive Practices." R. Siddall. Bell Hotel, Leicester.

2 "Some Aspects of Motion and Time Study." D. D. W. Usalis. Grand Hotel, Sheffield. 7.30 p.m.

2 "Industrial Relations Under Present Circumstances." T. Leask. Star and Garter Hotel, Wolverhampton. 7 p.m.

4 "Law in Industry." Norman Scott. Vane Arms Hotel, Stockton. 7.30 p.m.

5 Annual General Meeting and Dinner. St. Ermin's Hotel, London, S.W.1. 6.45 for 7.30 p.m.

9 "Why Nationalised Industry Cannot Be Efficient." Lewis C. Ord. The Adelphi Hotel, Liverpool. 6.30 p.m.

9 "The Responsibility of Management in Securing Increased Productivity." J. Ayres. Starkie House, Starkie Street, Preston. 7 p.m.

11 "Some Aspects of Industrial Psychology." J. Munro Fraser. Royal Hotel, Bristol. 7.15 p.m.

11 "The Factories Acts." R. K. Christy (H.M. District Inspector of Factories). The Plough, Kenton Road, Kenton. 12.30 p.m.

16 "Co-Partnership." E. Scott-Bader. Franklin's Gardens Hotel, Northampton. 7 p.m.

18 "The Foreman's Point of View: The Works Manager's Point of View." Craven Arms Hotel, Coventry. 7 p.m.

18 "Leadership in Industry." J. Munro Fraser. George Hotel, Huddersfield. 7.30 p.m.

22 "The Foreman's Relations with the Shop Steward." S. B. Hills, M.B.E. Institution of Engineers and Shipbuilders in Scotland, 39 Elmbank Crescent, Glasgow, C.2. 7.15 p.m.

24 Informal Discussion. Eadie Bros. Ltd., Paisley.

29 Open Forum. The Grand Hotel, Manchester. 6.30 p.m.

**Leeds Education Committee**

1 Course in "Personnel Management." Leeds College of Commerce, 43 Woodhouse Lane, Leeds 2. 5.20 to 7.30 p.m. First Lecture—"Attitudes to Work" by Mrs. W. Raphael (N.I.I.P.).

**National Institute of Industrial Psychology**

1-5 Course in Selection Methods. London.

2 "Fundamental Research in Psychology." Dr. H. Imus. The Lecture Theatre, London School of Hygiene and Tropical Medicine, Keppel Street (Gower Street), London, W.C.1. 6 p.m.

2-3 Course for Supervisors (Women). London.

10 Follow-up Conference for Supervisors. London.

15 Follow-up Conference for Supervisors. Manchester.

15 Vocational Guidance Course, University of London, Institute of Education, Malet Street, London, W.C.1. 6.45 to 8 p.m.

15-19 Course in Selection Methods. Manchester.

16-17 Course for Supervisors. Manchester.

17 Vocational Guidance Course. The Midland Hotel, Manchester. 6.30 p.m.

18 Conference for Production Executives, Manchester.

18 Industrial Lectures. The Midland Hotel, Manchester. 6.30 p.m.

29-Nov. 2 Course in Selection Methods. London.

30-31 Course for Supervisors. London.

**Pendley Manor**

15-20 Foremen's Course.

**Urchfont Manor**

8-17 "The Human Factor in Industry."

29-Nov. 1 "Teaching Citizenship."

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9-23 Courses for Young Men and Women from Industry and Commerce.

## EMERGENCY CURRENT

*(Continued from page 157)*

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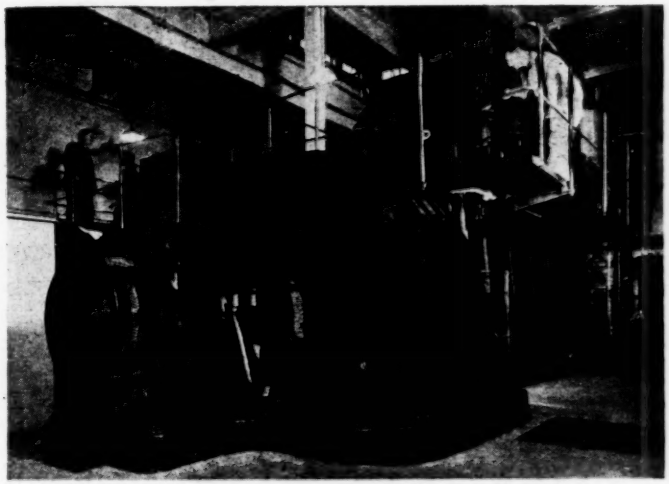

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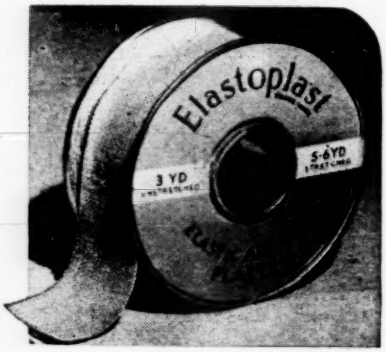


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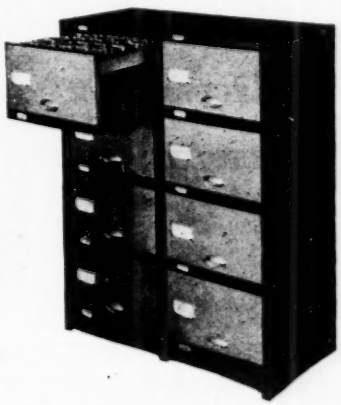

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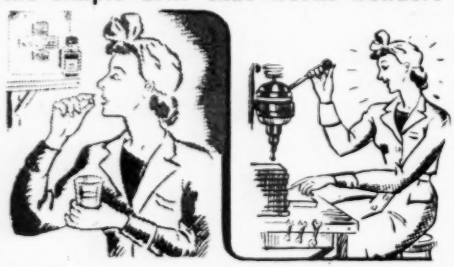

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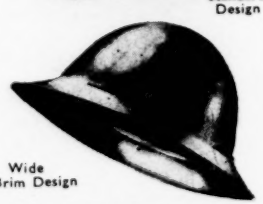

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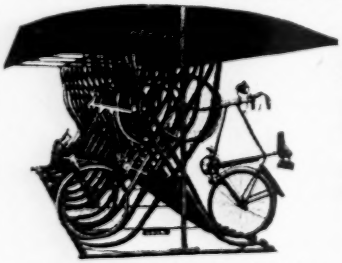

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